

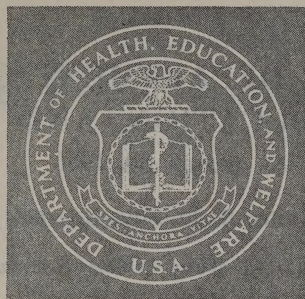
ANNUAL REPORT

1956

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

As of June 30, 1956

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Letter of Transmittal

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
Washington, D. C., December 1, 1956.

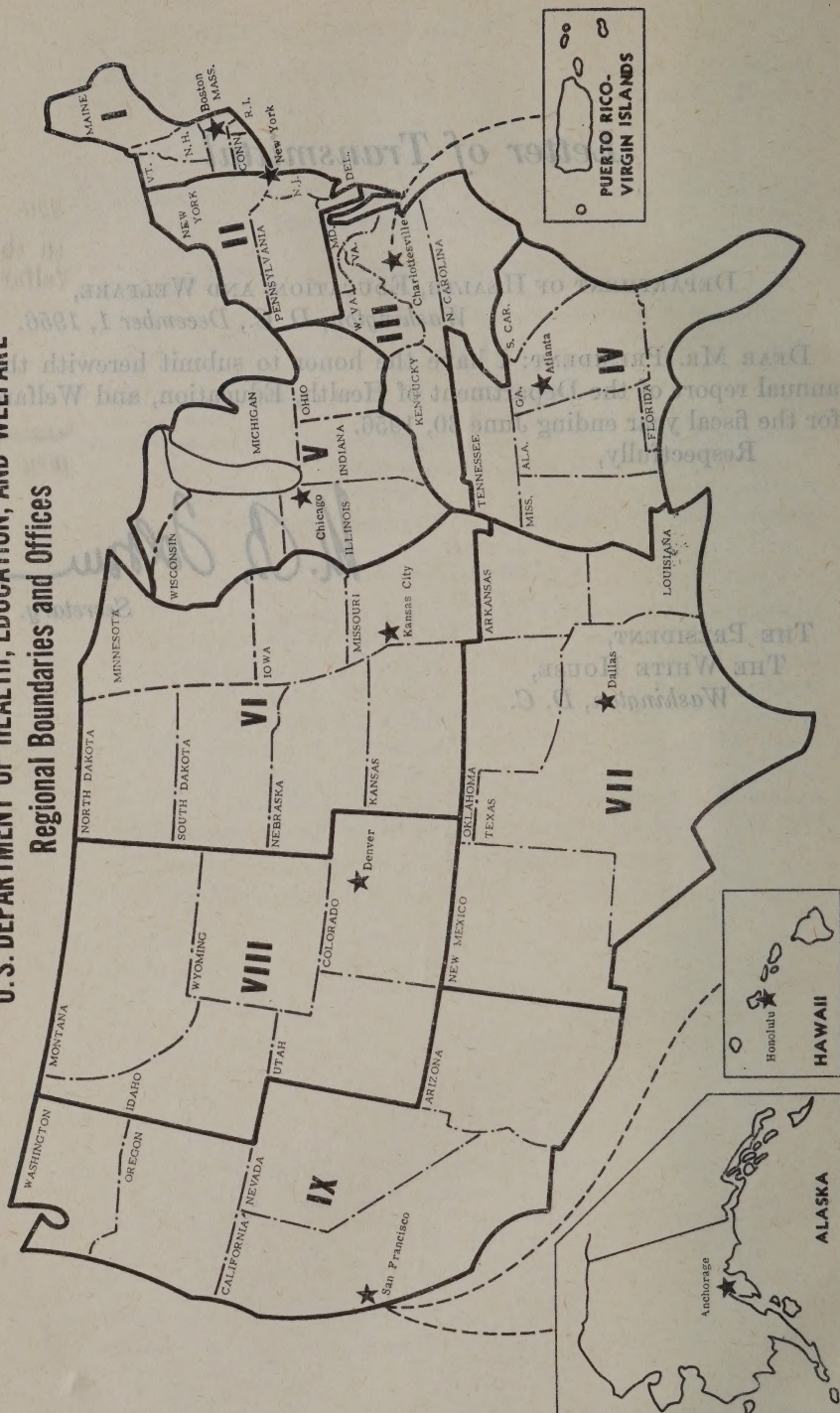
DEAR MR. PRESIDENT: I have the honor to submit herewith the annual report of the Department of Health, Education, and Welfare for the fiscal year ending June 30, 1956.

Respectfully,

W. B. Tolson
Secretary.

THE PRESIDENT,
THE WHITE HOUSE,
Washington, D. C.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE Regional Boundaries and Offices



The Secretary's Report

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The Secretary's Report

AMERICA IS A LAND of change, of sometimes sudden, dramatic growth.

As an example, consider what happened in one 30-year period in our history, the years spanning 1820 to 1850:

Americans had needed 200 years to spread their civilization westward across one-third of the country, to the Mississippi River. Farther west were only the Indians of the Great Plains, the fur traders, and, a thousand miles southwest, a foreign land owned by Spain and forbidden to Americans. Then, almost explosively, the westward rush began. The "Winning of the West"—from the Mississippi to the Pacific Ocean, from Canada south to Mexico—required only 30 years.

Now let's advance a century to another 30-year period in our history: the immediate past.

It took only 30 years, from 1926 to 1956, for our population to increase by 50 million, and our gross national product to jump from \$97.8 billion to \$412.4 billion. During this period, American industry grew to vast proportions, to bring to everyday use products unheard of in 1926. Normal life expectancy increased more than 12 years in this time, and many illnesses that formerly beset us were conquered. High school enrollment more than doubled, and college attendance increased by 34 percent. Almost every employed American gained through social security assurance of a minimum economic foundation. In our social and economic development, we have reached our highest point in history.

Today we stand at a doorway, looking into the unfamiliar rooms of the nuclear age, unsure of what changes the next 30—or even the next few—years will unfold. But we know that changes will come and that we, with preparation, must meet them.

The Department of Health, Education, and Welfare, youngest in our Government, is itself a product of our changing times, born of this spirited economic and social development. Our particular areas of service are vital—and as changing as the human needs of 167 million people. Human beings—Americans alive, Americans not yet born—give direction and meaning to our statistics and planning. As each individual finds better health, improved education, and stronger economic security, his own life is enriched and the welfare of the entire Nation is advanced.

In advancing human welfare, we not only face up to today's needs, but we look constructively to the future. This way of thinking, this forward look, is the essence of our future growth—as individuals, communities, States, and Nation. This effort—this working in the present and for the future—represents an underlying philosophy of this Department as we strive to serve the people of our country, to help each individual realize his potential.

As we move forward in our social and economic development, one of the most rewarding investments for the future lies in research. Expanded research in health, education, and welfare represents a constructive investment in human beings. But research cannot fulfill our bright hopes for progress unless we apply more quickly and fully the knowledge we obtain through research.

Progress and Plans in Health

In the decade since World War II, 6½ years have been added to the average life span, a blessing born mainly from better control of childhood infections and communicable diseases. Deaths from tuberculosis and pneumonia have been reduced dramatically. Surgical techniques, undeveloped 10 years ago, are now routine, and treatment by antibiotics has progressed to a point that a decade ago would have appeared as visionary. A treatment and prevention program has been developed which strikes hard at rheumatic fever. Chemotherapy holds hope of controlling some forms of cancer and mental illness. The scourge of polio is on the wane.

The progress we can total up this past year reflects the thinking, planning, and action of many individuals and groups: of the President, the staff of this Department, and members of Congress who gave fresh emphasis to the enactment of important health legislation; of the universities, hospitals, private laboratories, and great philanthropic organizations which devoted much of their effort to better health; of the scientists who labored to bring forth new knowledge and those in the medical profession who worked daily to bring the benefits of medical knowledge to the people; of the local and State governments which played their significant role in improving health.

To all the people who, in one way or another, supported advances in health, we owe these proud gains.

HEALTH RESEARCH PROGRAM

Since World War II, medical-research expenditures from all sources have increased more than fourfold—from \$60 million in 1945 to \$270 million in 1956. This may seem an impressive figure, but it represents only 5 percent of our total national expenditure for research and development. Considering the potential humanitarian and economic gains from medical research, this proportion is small indeed.

Congress allocated \$99 million to the National Institutes of Health, principal research arm of the Public Health Service, for use in the past fiscal year. These funds were greatly increased for the fiscal year 1957. Most of this sum is allocated, in turn, for medical research by scientists in hospitals, medical schools, and universities throughout the country.

Our major aim in medical research today is to find the basic causes of those chronic diseases which kill and cripple so many of our people. The greatest killers—diseases of the heart and arteries—account for almost half of all deaths. Cancer claims nearly 250,000 lives each year.

But death alone does not define the full tragedy of chronic diseases. We cannot begin to measure the hurt to each family represented in these statistics: diabetes, 2 million people; epilepsy, 1½ million people; arthritis and rheumatism, 10 million people. And the trend in chronic disease is upward, since older people who are most susceptible account for an increasingly large proportion of our population.

Last year a number of specific and important findings were associated with our Institutes or with Institute-supported work. In the fight against cancer, the chemotherapy program was rapidly expanded. Our scientists report that increasing emphasis is being given to basic research into biochemistry of the cell. In another direction, during the year, final data were collected on a test for the early detection of uterine cancer. This test, conducted for 3 years as a pilot project in Memphis, Tennessee, has been undergoing trial in eight other cities, with a view toward full national usage and the eventual elimination of this form of cancer. During the coming year, the National Cancer Institute plans to develop application of the test to other parts of the body.

The study of cerebral palsy has recently received increased emphasis. Last year an intensive, nationwide research program was initiated to seek out the causes and improve treatment of this disease that afflicts some 300,000 of our children annually.

In the past we have perhaps given more emphasis to funds for current medical research and have attached less importance to two

other requirements for progress in health: adequate medical-research facilities and well-trained manpower. However, we cannot afford to neglect any one of these three factors, for each is important in our total efforts toward better health. Last year the President recommended to Congress a \$250 million, 5-year program for grants to build facilities for medical research and for medical education to train more doctors. Congress subsequently authorized an annual grant of \$90 million for a 3-year period to medical schools and universities, hospitals, and other nonprofit institutions to construct and modernize their research facilities. Congress made no provision for aid to build medical teaching facilities.

HOSPITALS

We have just completed the tenth year of operation under the local-State-Federal program of hospital construction. During this decade more than 2,000 federally aided hospitals and health centers were built and are now in operation, including 550 new general hospitals in communities where people had never had a suitable hospital before. An additional 800 projects are now planned or under construction, including 325 approved last year. As a result of this orderly planning on a nationwide basis, projects completed or approved as of June 30 amounted to a grand total of more than 136,000 hospital beds and 750 health units for outpatient care.

The administration proposed an important new phase in our entire hospital program, which was approved by Congress. This was the extension of the program in 1954 to include Federal aid for four new categories: nursing homes, chronic-disease hospitals, diagnostic and treatment centers, and rehabilitation facilities. By June 30, 1956, 204 such projects had been approved. They will provide 4,500 beds and 120 units for outpatient care. To the extent of their use, they will free our general hospitals to serve the more acutely ill. The first construction under this new program began with Federal approval in July 1955 of a 53-bed nursing home in Florence, Arizona.

NURSING SERVICES

Advances in surgery and medicine have increased the responsibilities of our nurses and enlarged their workload. This, combined with current shortages of trained nurses, has created a serious problem in providing hospital care of patients. Last year a research program was launched to improve nursing services, and, as a result of this study, the Public Health Service has demonstrated ways in which hospitals may make better use of their nurses and improve patient care. Already 113 hospitals in 14 States have been helped in this phase of their work, and eventually these improvements will be of practical use to hospitals throughout the country.

To ameliorate the nursing shortage, legislation was sponsored by the administration and enacted last year to train additional nurses in teaching, administrative, and supervisory capacities. In addition, \$2 million was made available to educational institutions and individuals to train rehabilitation workers in such positions as nursing, physical therapy, and occupational therapy. At the close of the fiscal year, \$2 million was also provided for the training of practical nurses, whose work will free professional nurses for their more responsible duties.

POLIOMYELITIS PROGRAM

During the fiscal year 1956 the manufacture of poliomyelitis vaccine was greatly increased, and, under a voluntary priority apportionment system, administered by the Federal Government and the States, vaccine was used throughout the Nation on a broadening scale. The program was aided by a congressional appropriation of \$53 million to help purchase vaccine. By the end of the year, enough vaccine had been released to provide some protection for all children under 20 and expectant mothers.

Studies of the effectiveness of the vaccine were conducted in cooperation with the States and Territories. As a result, scientists decided that the vaccine may be given with good results in the summer and during epidemics, and it is now clear that, even with only one or two doses, the vaccine reduces the risk of paralytic poliomyelitis by about 75 percent.

State by State allocations under the voluntary distribution plan were discontinued in August 1956, when supplies of the vaccine became more plentiful.

INDIAN HEALTH

At the beginning of the fiscal year, the Public Health Service, by act of Congress, assumed responsibility for providing medical care and health services to some 350,000 Indians and Alaska Natives. This responsibility was transferred from the Bureau of Indian Affairs in the Department of the Interior.

Historically, our Indians and Alaska Natives have been isolated both geographically and culturally from the mainstream of progress that brought health rewards to each succeeding generation of Americans. The health needs of these people are critical. Their average age at time of death, for example, is 39—compared with 60 for the general population.

Most of their illnesses are tragically due to causes than can be prevented. For this reason, the Public Health Service has accelerated its program of disease prevention. More than \$4.3 million was spent

in this effort during the year, and more than 500 of the 4,150 Indian health staff were engaged in preventive health activities.

HEALTH SURVEY

At the close of the fiscal year, the President signed a bill, proposed in his health message, authorizing the Public Health Service to conduct a continuing national health survey, the first such Federal survey in 20 years. When we understand more clearly the extent of illness and disability in the Nation, we can with more accuracy appraise our needs, with more effectiveness use our medical manpower and facilities. These statistics, brought up to date every year, will be of tremendous significance to all who work in the cause of health.

OTHER NEW AND EXPANDED PROGRAMS

Steps were taken to help States initiate or expand health services for migratory labor and rural areas. Programs for study of the special medical problems of older people were enlarged. Plans were completed for a special accident prevention unit which began work at the end of the fiscal year. Civil defense training programs for sanitary engineers and other public health officials were conducted in all parts of the Nation.

Air pollution and water pollution constitute community health hazards and threaten, in varying degrees, our social and economic well-being. New legislation materially strengthened and improved the Federal Water Pollution Control Act, providing for expanded research and simplified measures for enforcement. Program grants to State and interstate water-pollution agencies were authorized and also grants to municipalities for construction of sewage-treatment works.

Air-pollution research was considerably expanded during the year, following legislation enacted in 1955. Various aspects of this problem are being studied by the Public Health Service's facilities and in cooperation with other Government agencies. In addition, during the year a number of grants were made to private institutions, agencies, and individuals for additional research into the problem of air pollution.

Progress and Plans in Education

To each American his individual education is a matter of urgent personal importance, a foundation stone he must stand upon to reach his greatest potential. In our country, our free educational system is basic to progress. We must strive constantly toward this goal—that every child has the opportunity for learning to the full extent of his ability.

Many deficiencies in our school system today are an inheritance from the 20 years from 1930 to 1950. School construction ebbed during that first decade of economic depression and low birthrate and, because of labor and material shortages, came to an almost complete halt during World War II. The problem has been aggravated in the past 10 years by a 40-percent increase in school enrollment. Last fall 40 million full-time students from kindergartens to colleges—nearly one-fourth of the total population—swarmed into overcrowded schools. By 1960 we may expect to have 48 million students.

Since 1950, when States and communities spent about \$1 billion to build 36,000 new classrooms, public school construction has increased steadily; last year an estimated 63,000 new classrooms were built at a cost of about \$2½ billion. But even as the construction rate spiraled upward, new schools failed to meet expanding needs. While some progress has been made toward reducing the deficit, it will take many years at the current rate of construction to eliminate the classroom shortage.

On the basis of reports from the States, 80,000 new classrooms were needed in the 1955-56 school year to accommodate about 2¼ million pupils enrolled in excess of the normal capacity of the public schools. The Office of Education estimates an increase of more than 6 million children in our public schools during the next 5 years. At 30 pupils per room, this would require 200,000 new classrooms for the increased enrollment alone. In addition to these needs, many thousands of classrooms will need replacement.

To help meet the needs of our children for more schools, the President proposed a program of Federal aid in providing these desperately needed classrooms. The President had asked for authorization of appropriations totaling \$1.25 billion over a 5-year period in Federal grants to the States to build schools in needy communities. He had also requested authorization of \$750 million for the purchase of school bonds in districts with marginal credit. Congress failed to act upon these proposals.

We have just completed the sixth year of operation under the two laws providing for Federal assistance to schools and school construction in areas where the public elementary and secondary school population is especially increased by Federal activity. During this fiscal year, \$85.2 million was paid to such schools to assist in meeting annual operating expenses on behalf of 980,000 students. To build new schools in these areas, \$43.4 million was approved. Over this 6-year period, a total of \$621 million was allocated, and this new construction now houses some 900,000 school children.

Recognizing the complex and pressing problems facing our schools today, the President initiated a nationwide citizens' study of our educational system from elementary school through high school. Half

a million people took part in 4,000 meetings all over the country. These meetings, devoted to local school needs and problems, culminated in the White House Conference on Education in the fall of 1955. The report to the President from the 34-member Committee for the Conference contains 72 specific recommendations for improvement in elementary and secondary education—a much-needed springboard for the solution of school problems. The gains from a sharpened public interest in education are immeasurable, for ultimately it is the people who determine the quality and quantity of education in America.

Many of the 40 million children now overflowing our elementary and high schools soon will be at the doors of our colleges and universities. Action and planning are imperative now, and on a broad scale, to meet the educational needs not only of those who complete high school but also for those adults who need further educational opportunities in the sciences and professions and in the liberal arts. For this reason, the President in April 1956 appointed a Committee on Education Beyond the High School, composed of 35 prominent lay leaders and educators. The committee will study and make recommendations for action to help solve the fundamental problems that beset higher education today—problems which will become more acute tomorrow unless we remedy them.

In 1956 the administration proposed an unprecedented 100-percent increase in funds for the Office of Education—from \$3¼ million to \$6 million. Congress approved more than \$5¼ million for operation in fiscal 1957, a 65-percent increase. As a result, many services to schools all over the country will be expanded and new services inaugurated. Importantly, much-needed educational research can begin.

EDUCATIONAL RESEARCH

One of the serious defects in our educational system in the past has been the lack of adequate research upon which to base our planning for tomorrow and our decisions today. We spend annually some \$15 billion to build and operate our schools, from kindergarten to college. But we have spent less than a half million dollars to make our educational system, in its actual functioning, more efficient and responsive to the needs.

In the spring of 1956 Congress appropriated a little over a million dollars for cooperative educational research. This money, meager as it is compared with the nationwide need, is eagerly sought. By mid-July the Commissioner of Education had received 70 preliminary proposals from nearly as many institutions and agencies; by the end of August, 55 more proposals had been made. The Research Advisory Committee will evaluate proposals throughout the year. If funds are not available at the time a project is approved, it will be deferred until they become available.

By October 1956, 29 projects had been recommended for support.¹ These include research into the important areas of education of the mentally handicapped, the development of special abilities of students, the relationship of education to juvenile delinquency, and the problem of why so many capable students drop out of high school and college.

Progress and Plans in the Food and Drug Administration

The food and drugs that we consume every day are vital to our life and health. The year 1956 marked the fiftieth anniversary of our first Federal food and drug law and brought a rededication to the ideal of maintaining in our food and medicines the highest degree of purity.

Time has dimmed somewhat the records of deplorable conditions a half century ago that led to the first food and drug legislation. No greater tribute can be paid the work in consumer protection than that the public, generally, takes it for granted.

The past two decades brought a revolution in food and drug consumption. The bulk foods of a generation or more ago have been replaced by packaged and frozen food and prepared mixes. The average large market now stocks over 5,000 items, compared with about 1,000 items carried by the general store before World War II. The drug industry expanded and its production methods changed as new drugs and medicines were developed, beginning with the sulfa drugs of the 1930's and continuing to the antibiotics and tranquilizing drugs of today. New drugs approved for safety since 1938 account for more than 90 percent of all prescriptions written today.

Every year more than \$60 billion worth of food and drug products subject to Federal inspection move in interstate commerce through some 100,000 factories and warehouses. This has greatly increased the responsibility of the Food and Drug Administration. Its limited staff and facilities were unable to keep pace with the changes in food processing or with the unparalleled progress in pharmaceutical research and development.

Early in 1955 a Citizens Advisory Committee was established to study the needs of the Food and Drug Administration in meeting its responsibilities. Some of the recommendations included in its report, submitted in June 1955, are now moving toward reality. These include congressional approval of a new headquarters and laboratory build-

¹ By the end of December 1956, 79 cooperative educational research projects had been recommended by the Committee for support.

ing and a 15-percent increase in appropriations for 1957. Internal reorganization is under way to provide maximum efficiency.

This progress will aid the Food and Drug Administration in its effort to catch up—and keep up—with its complex job. Further expansion would mean, simply, improved service to American industry and increased safety for American consumers.

An important part of the work being done to safeguard the public health is the constant war against worthless or illegal medicines. Curative claims of useless “remedies” lead the seriously ill to turn away from competent medical treatment. During the year, an extensive investigation was made into the sources of sale of amphetamine to truckdrivers, whose use of this stimulant jeopardized highway safety. Conditions are now improved in the South Atlantic States where the campaign was most active.

As a part of its civil defense activities, the Food and Drug Administration last year instructed approximately 2,000 people in the handling of problems inherent in an attack employing chemical, biological, or nuclear weapons and in procedures necessary to test products so exposed and to restore a safe food and drug supply. This information was provided through 53 5-day courses in 45 States.

Teams of workers stand ready to go to all critical problem areas to assist local and State agencies. Their help was needed last August when Hurricane Diane lashed through the New England States, causing serious damage to commercial stocks of food and drugs. During the Christmas holiday season, northern and central California suffered the worst flood in the State’s history. As the waters receded, Food and Drug Administration workers were on hand to assist in protecting the public from contaminated food and drugs.

Progress and Plans in Social Security

One of the strongest intrenchments against human distress in our country today is the Federal system of old-age and survivors insurance. Some years must still pass before the entire impact will be felt, when the first full generation of Americans completes its working life under the provisions of the Social Security Act.

In the past year the social security system continued its steady growth toward maturity. By June 1956, nearly 8.4 million people were receiving benefits at a rate of \$5.3 billion a year. Nearly 80 percent were over 65 years of age, representing three-fourths of our retired aged population.

As the fiscal year closed, legislation was effected to widen the area of protection even further. The amendments of 1956, signed by the President on August 1, extended coverage to include military personnel, lawyers, dentists, osteopaths, other self-employed persons,

and more farm owners and operators. Thus, more than 9 out of 10 employed persons in the country are eligible for coverage under the social insurance program. The broadened program includes cash payments for totally disabled workers aged 50 and over and, in specific instances, for disabled children over 18 years of age. Widows are now eligible for social security benefits at age 62. Other women may receive reduced benefits at the same age.

PUBLIC ASSISTANCE—A CHANGED EMPHASIS

From Federal and State funds, public assistance is now being paid to 5 million Americans. These are the needy aged, blind, totally disabled, and dependent children. Every State now administers Federal funds under the Social Security Act to aid those in need.

The Federal-State public assistance programs, established in the depression days of economic catastrophe, naturally and properly placed emphasis on providing cash income to meet immediate needs.

Today we recognize that we have a deeper duty to those in need than the mere payment of cash benefits. For many, disabled to the point where they have little hope of supporting themselves or their families, we should assume the responsibility of offering services leading to self-care. Others receiving public assistance may be capable of future independence, and the best service we can provide is to help them build toward independence and a rich and full life.

The administration has a firm objective to develop services leading to self-care, self-support, and the strengthening of family ties. This latter goal becomes particularly compelling when highlighted by statistics: 43 percent of all recipients of public assistance are in the aid to dependent children program, and more than half of these young people are dependent because of divorce, separation, unwed parenthood, or the desertion of the father.

New legislation, proposed by the administration and directed to these constructive objectives, was enacted by Congress during the year and will become effective in July 1957. Authorizations include \$5 million to launch a program of cooperative research into the causes of poverty and ways of overcoming them. The legislation also includes an amendment to the Social Security Act to help States train more workers for the public assistance program. If full advantage is taken of this opportunity, within 5 years an additional 5,000 to 6,000 professionally trained social workers will be available throughout the country to help overcome the complex problems of dependency.

The medical needs of the aged, the sick, and handicapped far exceed the facilities and services available. The new law authorizes Federal grants to the States on a matching basis to help make up this deficiency. This is, of course, apart from public assistance payments to individuals.

CHILD WELFARE SERVICES

Upon the administration's request, the 84th Congress increased from \$10 million to \$12 million the appropriation authorized to the States for child welfare services.

The regular programs of the Children's Bureau, as in the past, made notable contributions to the physical and emotional well-being of our children. Major current concerns are to provide social service to children in all geographical areas and to aid children who are mentally retarded or emotionally disturbed.

JUVENILE DELINQUENCY

Juvenile delinquency continues as a deep concern of the Department. In the past 7 years, the increase of youngsters appearing in courts has been 4 times greater than the increase in this population group.

Many units of the Department are at work on both the prevention and treatment aspects of this problem. The Division of Juvenile Delinquency Service, established in 1955 in the Children's Bureau, offers professional consultation to public and private agencies. The Bureau's programs for helping parents, professional workers, legal authorities, and others to meet their responsibilities to youngsters are potent forces on the side of prevention.

The Office of Education, through its research, consultation, and grants, assists educators in making school years a more meaningful and constructive experience for boys and girls. Significant research into the etiology of disturbed behavior of children and diagnostic techniques, conducted or financed by the Public Health Service, gives promise of better handling of delinquent and predelinquent youth in the future. In still another way, the Food and Drug Administration works at this problem through its control of habit-forming and stimulant drugs. The underpinning to family income provided by old-age and survivors insurance and through the Federal-State program of aid to dependent children is a strong factor in the prevention of delinquency.

To help States and communities make new or more vigorous efforts to cope with their delinquency problems, the administration supported bills introduced in the House and Senate which would provide a 5-year program of grants for planning and coordinating services, for training workers, and for study. These bills failed of passage.

Progress and Plans in Vocational Rehabilitation

For several years there was a downward trend in the annual number of handicapped people restored to productive jobs. Then, in 1954, legislation was effected to expand the Federal grants-in-aid program for rehabilitation.

By 1956, \$31 million became available to State rehabilitation programs, an increase of \$6.5 million over the preceding year. Under this broadened program, which created new opportunities for cooperation between public agencies and private groups, the downward trend was reversed. During the year 66,273 handicapped persons were returned to useful lives, the highest total in the history of the program which began in 1921. In the first year after their rehabilitation, these people will earn an estimated \$119 million, compared with their previous annual earnings of \$17 million.

Such monetary rewards are secondary to the humanitarian aspects—the increased self-respect gained by each handicapped individual as he advances to the dignity of self-support. As a further gain to the States and the Nation, during the year 3,500 rehabilitated people entered the professional fields of education, medicine, and engineering, where additional manpower is urgently required. More than 8,000 now work in skilled trades, and 6,000 work on farms.

Aware of the value of private effort in this kind of enterprise—and particularly at the community level—the Federal Government granted \$1 million to voluntary groups for the expansion of rehabilitation facilities. This sum represents 90 percent of total Federal funds.

During the year, \$2 million was made available to educational institutions for teaching grants in the field of vocational rehabilitation, in specific areas such as social work, counseling, and occupational and physical therapy; and 2,000 students were aided in traineeships. From these colleges and universities will come the professional workers we need in this understaffed field.

An expanded research program, with a view toward the eventual rehabilitation of a maximum number of people, was long overdue. Grants totaling \$1.2 million were approved for partial support of 39 special research and demonstration projects. These nationwide studies, though small compared with their urgency, are as varied as the needs of the disabled. In charting a path for this research, the Office of Vocational Rehabilitation is fortunate to have the benefit of an advisory council composed of an outstanding group of national leaders in medicine, education, rehabilitation, industry, and labor.

Every year, 250,000 persons become in need of help from rehabilitation programs. Some of them are being rehabilitated through the Federal-State program. Other handicapped persons are rehabilitated through private and voluntary efforts. Others have short-term impairments, die, or leave the disabled group for other causes. Yet, on a national annual average, 2 million people need the help vocational rehabilitation should be able to offer.

Progress and Plans for the Aged

Older people account for an increasingly larger percentage of the American population. Today there are 14 million persons 65 years of age or older. By 1975 the number is expected to climb to 21 million. The social and economic implications of an aging population are many and varied, and the whole subject matter is of increasing national concern.

Many of the problems of our aging population rise from basic changes in our economy and our society. The movement of people from a rural environment into cities, our greater industrialization, our attitudes toward the value of work by older people, even the current accent on youth in our culture—all these contribute to the complex problems of growing older.

There must be an economic and social framework in America within which older people can live usefully and with a sense of purpose. Nothing less than this is required for each older person as a human being; nothing less would be consistent with the national interest. Among many factors, this framework must embrace employment for those who are able and want to work, sufficient retirement income for others, suitable housing, improved health, and satisfactory leisure. Primary responsibility for meeting these needs rests, of course, with the individual, his family, and his community.

The Federal Government, however, has long carried on many activities which bear directly or indirectly on the welfare of older persons. In more recent years, the Government has been giving increasing thought and emphasis to these activities.

Every major unit in the Department of Health, Education, and Welfare conducts some activity relating to the welfare of older people. The old-age and survivors insurance and old-age assistance programs are basic to income maintenance of older people. Various programs of the Office of Education and the Office of Vocational Rehabilitation are of special service to older persons. Expansion of the Public Health Service's hospital construction program places particular emphasis on nursing homes, geriatric clinics, and chronic-disease hospitals. Research in the chronic diseases, which are more prevalent among older people, has been greatly expanded by the Public Health Service.

To coordinate and broaden the activities of various Federal agencies whose responsibilities include programs relating to older persons, the President in April 1956 created the Federal Council on Aging. The Council is composed of 13 Federal departments and agencies—the Departments of the Treasury; Interior; Agriculture; Commerce; Labor; and Health, Education, and Welfare; and the Office of Defense

Mobilization; U. S. Civil Service Commission; Veterans Administration; Housing and Home Finance Agency; Small Business Administration; National Science Foundation; and Railroad Retirement Board.

The Federal Council and the Council of State Governments jointly sponsored in June 1956 the first Federal-State conference ever held on the problems of the aging. The conference served to coordinate and provide impetus to the work being done by the Federal and State governments on behalf of older people. The conference provided an opportunity for discussing the nature and impact of the problems of an aging population and the experience gained from specific programs designed to meet the needs of older people. Thus, the States were better equipped to develop principles for administrative, legislative, and community action to benefit older people.

The efforts of many individuals, of private organizations, and of government at all levels—Federal, State, and community—are required to establish the climate and opportunity for older people to live in dignity and make their contribution to the progress of the Nation. But the efforts of all organizations and government units must, in the end, be directed to producing such a climate and opportunity in the community. For it is in the community—his immediate living environment—and nowhere else that the older person will find personal satisfaction and impart the benefits of his experience, wisdom, and skills into the mainspring of American life.

* * * * *

All Americans owe a debt of gratitude to those who, in their chosen fields of endeavor, have worked faithfully through the year in the cause of human betterment. That flowing tide of Americans of the last century who pounded across mountains and plains and won the wilderness country were never, in their own time, accorded such a resounding name as pioneers; they were simply "the movers." Nor do we today call our doctors, nurses, scientists, social workers, and teachers—pioneers. But we may acclaim them as "movers." Their daily contributions and plans for the future have moved our country one more year ahead in a steady progress toward better health, improved education, and a deeper foundation for economic security.

**—Grants to States: Total grants under all Department of Health,
Education, and Welfare programs, fiscal year 1956**

[On checks-issued basis]

States, Territories, and possessions	Total	Social Security Administra- tion	Public Health Service	Office of Education	Office of Vocational Rehabili- tation	American Printing House for the Blind
Total	\$1,835,819,489	\$1,488,897,227	\$104,959,947	\$208,633,750	\$33,094,565	\$234,000
Alabama.....	50,826,270	42,034,093	3,282,676	4,441,564	1,062,927	5,010
Arizona.....	13,066,000	9,735,759	439,019	2,659,106	230,592	1,524
Arkansas.....	27,884,530	23,024,533	1,633,568	2,575,559	645,426	5,444
California.....	202,084,798	162,314,461	6,741,226	30,958,570	2,054,702	15,839
Colorado.....	33,288,377	27,814,440	617,795	4,551,669	302,046	2,427
Connecticut.....	17,508,205	13,341,470	707,146	3,015,738	440,459	3,392
Delaware.....	2,678,636	1,953,246	136,179	373,261	184,861	1,089
District of Columbia.....	5,646,763	4,644,885	507,635	106,999	336,155	1,089
Florida.....	48,245,061	39,770,274	2,835,021	4,473,567	1,161,220	4,979
Georgia.....	60,369,378	48,590,425	4,263,980	5,727,555	1,780,821	6,597
Idaho.....	6,858,872	5,309,679	462,299	1,009,966	75,901	1,027
Illinois.....	74,705,263	65,492,349	3,023,164	4,687,295	1,491,315	11,140
Indiana.....	23,727,063	19,365,699	1,486,139	2,453,746	417,465	4,014
Iowa.....	24,307,685	21,433,720	1,160,834	1,175,270	533,847	4,014
Kansas.....	26,863,126	19,126,850	2,070,170	5,289,763	373,760	2,553
Kentucky.....	35,572,244	30,420,708	2,718,979	2,122,618	306,143	3,796
Louisiana.....	74,546,005	68,935,053	3,443,860	1,223,429	939,338	4,325
Maine.....	10,954,095	8,606,251	926,282	1,232,956	188,606	-----
Maryland.....	23,730,857	11,469,840	1,788,824	10,128,904	338,528	4,761
Massachusetts.....	55,994,939	50,612,714	2,595,880	2,196,372	580,827	9,646
Michigan.....	55,693,277	43,810,423	3,336,332	7,292,818	1,242,564	11,140
Minnesota.....	32,288,768	27,333,889	2,585,095	1,615,571	748,581	5,632
Mississippi.....	29,637,561	25,522,264	2,185,928	1,485,190	440,165	4,014
Missouri.....	81,317,654	73,360,958	3,006,991	4,183,467	761,602	4,636
Montana.....	8,036,245	5,998,121	347,456	1,532,877	157,013	778
Nebraska.....	13,018,249	9,713,232	1,064,340	1,954,805	284,378	1,494
Nevada.....	3,814,267	1,610,218	522,835	1,648,914	32,300	-----
New Hampshire.....	4,821,566	3,435,316	507,479	777,843	100,928	-----
New Jersey.....	21,343,280	16,283,950	1,636,717	2,690,191	724,549	7,873
New Mexico.....	15,246,841	8,340,200	489,655	6,266,140	148,543	2,303
New York.....	125,570,602	109,824,096	7,595,281	5,717,475	2,415,360	18,390
North Carolina.....	41,995,690	34,108,765	4,004,351	2,584,204	1,286,763	11,607
North Dakota.....	6,616,937	5,054,897	830,513	553,882	176,743	902
Ohio.....	69,083,592	57,903,399	2,871,084	7,545,160	753,618	10,331
Oklahoma.....	62,770,417	52,192,165	1,712,900	8,215,876	646,955	2,521
Oregon.....	14,322,982	11,924,728	801,306	1,178,618	415,343	2,987
Pennsylvania.....	63,349,638	51,691,646	5,626,832	3,477,117	2,539,169	14,874
Rhode Island.....	8,431,464	6,517,833	425,591	1,313,625	174,415	-----
South Carolina.....	25,242,313	20,323,842	2,185,893	2,194,223	535,212	3,143
South Dakota.....	8,775,437	6,355,725	527,071	1,744,954	146,318	1,369
Tennessee.....	42,089,272	33,523,104	4,475,448	3,198,899	886,500	5,321
Texas.....	112,615,158	94,024,135	4,499,252	12,954,224	1,128,274	9,273
Utah.....	9,726,044	6,991,217	438,741	2,152,490	142,133	1,463
Vermont.....	4,772,075	4,052,617	298,765	279,944	140,749	-----
Virginia.....	34,578,194	13,460,304	3,775,994	16,392,764	943,344	5,788
Washington.....	43,159,989	33,773,092	870,545	7,937,557	575,372	3,423
West Virginia.....	24,195,683	21,087,007	1,513,352	808,180	733,877	3,267
Wisconsin.....	27,248,743	22,648,401	2,548,009	1,420,260	626,005	6,068
Wyoming.....	3,545,319	2,489,849	182,155	784,313	89,002	-----
Alaska.....	6,513,670	2,015,019	397,951	4,018,213	82,487	-----
Hawaii.....	7,837,671	3,942,956	186,842	3,520,764	187,142	467
Puerto Rico.....	8,842,070	5,213,904	2,590,248	751,456	284,222	2,240
Virgin Islands.....	432,231	343,506	50,896	37,829	-----	-----
Canal Zone.....	151	-----	151	-----	-----	-----
Guam.....	11,042	-----	11,042	-----	-----	-----
America Samoa.....	17,230	-----	17,230	-----	-----	-----

Social Security Administration

Social Security in 1956

IN JUNE 1956, the programs of old-age and survivors insurance and public assistance were serving as a major source of income for nearly 13 million people, with payments at an annual rate of almost \$8 billion. About 8.7 million of them were aged 65 and over; this group represents three-fourths of the Nation's retired aged population. The research and service programs of the Children's Bureau were carried forward during the year. Federal credit unions continued to expand throughout the country.

As the fiscal year closed, legislation was in process to effect a wide range of changes in old-age and survivors insurance and the public assistance programs.

The amendments extend the coverage of old-age and survivors insurance to about 600,000 additional farm owners or operators and about 200,000 self-employed lawyers, dentists, osteopaths and others. The only groups of self-employed professionals remaining outside the scope of the program are doctors of medicine and Christian Science practitioners. Under separate legislation, coverage on a contributory basis was extended to almost 3 million members of the Armed Forces.

The old-age and survivors insurance program was amended through the addition of disability benefits for certain permanently and totally disabled workers aged 50 and over, and for adult children of deceased or retired workers if the children had been permanently and totally disabled before reaching age 18 and remained so to the date of the award.

Another major change is in the provision of benefits for women prior to age 65. The retirement age for women is reduced to 62, with full benefits for widows and female dependent parents and with an actuarial reduction in the benefit amount for wives and women workers.

Accompanying the provisions for payment of cash benefits to disabled workers at age 50 was a provision for an increase in the contri-

bution rate to finance these benefits. The additional contributions amounting to one-fourth percent each for employees and employers, and three-eighths percent for the self-employed, will be automatically appropriated to a separate disability trust fund.

The amendments relating to public assistance that were recommended by the Administration place new emphasis on helping needy people to build toward greater independence. The amendments encourage the provision of appropriate social services; to assist in making trained individuals available for providing more services and in increasing the effectiveness and efficiency of public assistance administration, grants are made available to States for the training of welfare personnel. In addition to an increase in Federal matching on maintenance payments, the amendments provide for separate matching to help States pay for more adequate medical care for assistance recipients.

The authorization for grants for child welfare services was raised from \$10 million to \$12 million a year.

Another amendment provides grants and payments under contracts or cooperative arrangements to States and to public or other non-profit organizations to pay part or all of the cost of research or demonstration projects, such as those related to preventing or reducing dependency, or for the coordination of planning between private and public welfare agencies, or which will help improve the administration and effectiveness of programs under the Social Security Act.

These amendments obviously have important implications for the future as well as for the millions of people who now look to the social security programs for economic security and for a variety of services.

As a result of steady growth throughout the year, the number of beneficiaries of old-age and survivors insurance had reached 8.3 million in June 1956, an increase of 11 percent during the year. Eight out of every 10 of the beneficiaries were aged 65 and over; the 6.6 million aged beneficiaries were about the same proportion of the total benefit rolls as in June 1955.

While the number of aged persons receiving insurance benefits was rising at an average rate of almost 1 percent per month, the old-age assistance caseload was dropping slightly. The 1-percent decline over the year brought the number of recipients to 2,524,000 in June 1956. In relation to our growing aged population, this decline over the past few years has been more significant. In the autumn of 1950, when old-age assistance caseloads first began to drop, 23 out of every 100 persons aged 65 and over received assistance. At the end of fiscal year 1956, the ratio was down to 17 per 100. Over the same period, the ratio of aged insurance beneficiaries to the total aged population has risen from 19 per 100 to 45 per 100.

With declining old-age assistance caseloads and continuously increasing proportions of the aged population receiving insurance benefits, the supplementary role of the assistance program is becoming more evident. By the end of fiscal year 1956, about 1 out of every 5 old-age assistance recipients was receiving assistance to supplement his benefits under the insurance program—compared with 1 out of every 10 in September 1950. When measured in relation to the expanding old-age and survivors insurance rolls, however, there has been a decrease in the proportion of insurance beneficiaries receiving supplementary assistance payments. The 8 percent of aged insurance beneficiaries who were also getting assistance in June 1956 had smaller benefits, on the average, than all aged beneficiaries.

The number of families receiving aid to dependent children was 6,600 lower in June 1956 than in the same month of 1955, but the number of children assisted was greater. The 614,000 families receiving assistance in June 1956 contained 1,708,000 children, an average of almost 2.8 per family in contrast to just over 2.7 for families on the rolls in June 1955. Nevada, since 1945 the only State without a federally aided program of aid to dependent children, established such a program during the year. With old-age and survivors insurance providing protection for children whose fathers have died, the aid to dependent children program will be almost wholly confined in the not too distant future to meeting need arising from causes other than death—for example, from the disability or absence of the father from the home.

Again this year there was a significant increase—9 percent—in the number of recipients of aid to the permanently and totally disabled. A total of 258,000 persons were receiving these payments at the end of the year. The establishment of programs in three States during the course of the year brought the number of federally aided programs for aid to the permanently and totally disabled to 45.

Aid to the blind went to 106,000 persons in June 1956, some 2,000 more than a year earlier.

Average payments under each of the federally aided programs had risen during the year, and the aggregate of payments made under the four programs in June 1956 was 3.3 percent more than in June 1955. Reflected in the higher expenditures for public assistance is the increased cost of medical care paid for by the States for persons on the rolls.

The programs of the Children's Bureau contributed to the well-being of children throughout the Nation.

Appropriations of Federal funds under title V of the act were increased by Congress by \$4 million in the crippled children's program for fiscal 1956, by \$2 million for maternal and child health for 1957,

with \$1 million identified for emphasis on programs for mentally retarded children. The 84th Congress increased the authorization for appropriations to the States for child welfare services from \$10 million to \$12 million.

Preliminary figures from State reports indicate that a new peak was reached in 1955 in the number of handicapped children served under federally aided programs for crippled children. Some 278,000 children were cared for during the year. Most of the children (221,000) were seen in clinics; about 53,000 received physicians' services through home or office visits. Children who were hospitalized numbered approximately 48,000. Convalescent-home care was given to the smallest group, around 3,800. Following the increase in the appropriation for crippled children's services, the Children's Bureau conducted a series of regional meetings to discuss new types of handicapping conditions that might be included in the program and to give the States an opportunity to exchange ideas.

The Children's Bureau administers the Federal grant-in-aid funds for child welfare services. It also develops guides, recommendations for practice, and informational materials in relation to the child welfare program as a whole and for specialized services, such as social services to children in their own homes, protective services, homemaker services, services to unmarried mothers, foster family and group care programs, and adoption services.

A major concern of the Children's Bureau, the Bureau of Public Assistance, and State public welfare agencies is the provision of appropriate social services for all children in need of them in all geographical areas, including, for example, mentally retarded children, emotionally disturbed children, and financially dependent children.

Juvenile delinquency in the United States continues to be a major social problem and the amount is ever increasing. Delinquency has been on the upswing steadily for the past 7 years, and percentagewise rising far faster than our juvenile population. The Division of Juvenile Delinquency Service was established in the Children's Bureau in 1955. Consultant service is now being given to States and communities in relation to juvenile courts, probation, institutions, police work, personnel training and community services for the prevention of juvenile delinquency.

Program research on disadvantaged children is being emphasized. In addition to its own studies and those conducted jointly with others, the Bureau has sought to stimulate research in child life by other agencies, by formulating the questions requiring study and developing research methods, and has assisted agencies engaged in such research.

Certain groups of children call for special attention. Among these are the juvenile delinquents, the children of agricultural migratory

workers, mentally retarded children, and children placed for adoption without legal, medical, and social protection. The Bureau placed emphasis upon the needs of these groups during the past year.

Federal credit unions registered further growth during the year with a 12-percent increase in membership to 4.3 million. In June 1956, there were 8,108 operating Federal credit unions, a net gain of 546 for the year. Their assets of \$1.4 billion were 22 percent greater than in June 1955.

Program Administration in 1956

Ever-increasing workloads required that all of the Bureaus carry forward their efforts to improve procedures and organizational structure and maintain a high level of efficiency. There was still much to be done to implement the 1954 amendments, and the legislative planning and analysis in connection with the 1956 amendments spanned the year.

The major contribution the social security programs are making to the economic security and welfare of aged persons received increased attention during the year. A Social Security Administration Committee on Aging was established to provide for continuing close coordination and an integrated focus, within the Social Security Administration and in relation to the Departmental Committee on Aging. Staff participated in the planning of the Federal-State Conference on Aging, held in Washington on June 5-7, and served as resource persons and recorders during the sessions.

Old-age and survivors insurance benefits taking into account the disability freeze were first payable in July 1955. From early in calendar year 1955 through the end of fiscal year 1956, nearly a quarter-million applications for a period of disability were processed to allowance or denial. A program for the collection and analysis of disability statistics, as a byproduct of the determinations, was put into operation.

The Bureau of Old-Age and Survivors Insurance inaugurated an intensive study of old-age and survivors insurance provisions and their administration for the purpose of seeking a simpler, clearer, and more rational law and program.

The Bureau's use of automation in its repetitive mass operations was carried forward through installation of large-scale electronic data-processing equipment in the earnings record operation.

The Bureau of Public Assistance placed increased emphasis during the year on developmental work in improving the adequacy of services to needy people, and in planning for the strengthening of family life through increased capacity for self-care and self-support. Effort was also made to advance efficient and effective State administration of

public assistance programs and to strengthen Bureau administration and facilitating services.

The Social Security Administration was given responsibility for operation in an emergency of the financial assistance and clothing programs of Defense Welfare Services. This is in addition to the planning responsibility previously assigned. The Commissioner of Social Security was also authorized to sign agreements with the States regarding Defense Welfare Services operations. By the end of the fiscal year, agreements had been signed with 12 States; by the end of August, with 27 States.

The Children's Bureau gave major emphasis in its technical research to studies of the costs and effectiveness of various programs and statistical reporting. One such study subject is the development of a method for determining unit costs in child placement and institutional care of children.

The fact that Federal credit unions are increasing in size as well as number has important implications for the program administration responsibilities of the Bureau of Federal Credit Unions. During the year solutions to new problems were developed and trends were studied for the purpose of anticipating the need for changes in procedures. To determine whether Bureau policies have kept pace with changing economic conditions and the growth of Federal credit unions, a comprehensive survey of the basic policies pertaining to chartering, examination, and supervision was undertaken.

To carry out the operations of the growing programs, the Social Security Administration had 18,591 employees at the end of June, the vast majority of whom were in field, area, and regional offices. This compares with a total of 18,514 on the payroll a year earlier.

INTERNATIONAL ACTIVITIES

The Social Security Administration continued to participate in policy development in the international social welfare field through representation at United Nations meetings and those of the Organization of American States. Meetings during the year at which staff served as delegates or accredited observers included the United Nations Children's Fund, the First United Nations Congress on the Prevention of Crime and Treatment of Offenders, the Directing Council of the American International Institute for the Protection of Childhood, and the International Social Security Association.

An important phase of the Social Security Administration's international activities was the preparation of materials and papers for Interdepartmental Committees on International Social Welfare Policy, on International Labor Policy, on Human Rights, and on Status of Women, in connection with sessions of the United Nations

General Assembly, Economic and Social Council, and other UN and OAS meetings. Information was also prepared on new developments in program administration and services, training, costs of social security, and other subjects for international studies and reports sponsored during the year by the United Nations and the International Labor Office.

Preparations were made for the Eighth International Conference of Social Work in Munich, August 5-10, 1956, at the sessions of which Social Security Administration staff participated in expert groups or commissions.

The international aspects of social work and social welfare have claimed increasing attention from the national organizations in these fields. Social Security Administration staff has assisted this development through the preparation of materials and through participation at general meetings, workshops and panel discussions.

The Social Security Administration continued to cooperate with the International Cooperation Administration in the nomination and technical support of experts in the fields of social welfare, social insurance, and maternal and child health, as required by the agreements between the two organizations. At the end of the year, 19 consultants were assigned to overseas posts.

The growing consciousness of the social needs of people has been reflected in the applications of trainees coming to the Social Security Administration this past year. The requests for study make clear that all governments, whether with new or advanced welfare programs, are anxious for the trainees to have a broad understanding of social welfare in the United States and of the interrelationship of social and economic needs, as well as specific knowledge in particular fields.

In 1956, the swiftly expanding social welfare programs brought to the Social Security Administration 698 trainees, from 45 countries, representing all parts of the world. These included United Nations and World Health Organization Fellows, International Cooperation Administration participants, and many experts and students financed through voluntary organizations or personal funds.

Old-Age and Survivors Insurance

During the fiscal year 1956 the old-age and survivors insurance program made significant progress toward providing basic security for the workers of the Nation. The largest single gap in coverage was closed by the extension of protection to members of the uniformed services. Coverage was also extended to all previously excluded self-employed professional groups (except doctors of medicine), to many

additional self-employed farmers, and to a number of smaller groups of workers. With these extensions of coverage, the number of persons covered by the program will be approximately 75 million during the calendar year 1957. Significant strides were made in effectuating the provision that protects the benefit rights of workers and their families during periods when the worker is under a long-term disability; by the end of the year this provision had been applied in the case of 134,000 disabled individuals.

Legislatively, 1956 was a very active year. In addition to the extensions of the coverage of the program, mentioned earlier, Congress enacted many changes that introduced new concepts into the insurance program. These included provision of benefits at age 50 and over for disabled workers and a reduction to 62 in the age at which women may qualify for benefits, with the benefits actuarially reduced where working women and wives elect to receive them prior to age 65.

The year witnessed, too, the undertaking of several projects designed to further program objectives and to improve administration. Plans were made for a project for detailed study and analysis of the old-age and survivors insurance program with the objective of determining where the program can be simplified, clarified and rationalized so that it will be easier to administer, explain, and understand. The Bureau of Old-Age and Survivors Insurance made a comprehensive study of the effectiveness of the 1954 amendments in providing social security coverage for farmers and farm workers. Based on this study and on other experience, the Department prepared and submitted to the Committee on Finance of the Senate and to the Committee on Ways and Means of the House of Representatives a report on the effectiveness of those provisions. A work group on aging reviewed the many activities of the Bureau of Old-Age and Survivors Insurance in the field of aging and presented recommendations for the expansion of these activities. Automation in the record-keeping operation was advanced through the installation of large-scale electronic data-processing equipment to post earnings records and to facilitate the computation of benefit payments. Responsibility for preparation of the checks for the 1 million beneficiaries served by the Bureau's Birmingham, Alabama, area office (payment center) was transferred from the Treasury disbursing office to the Birmingham area office. The transfer permitted the combining of check-writing operations with accounting work, resulting in work simplification and savings.

The following pages spell out in more detail the year's record of significant events and accomplishments.

What the Program Is Doing

BENEFICIARIES AND BENEFIT AMOUNTS

In June 1956, about 8.3 million individuals were getting monthly benefits under the program. Some 6.6 million of these beneficiaries were aged 65 or over—4.7 million of them retired workers and 1.9 million the wives and dependent husbands of retired workers and the widows, dependent widowers, and dependent parents of workers who had died. Of the remaining 1.7 million, some 350,000 were mothers and 1.3 million were children.

In June 1956, the average insurance benefit paid to a retired worker who had no dependents also receiving benefits was \$60.00 a month. When the worker and his wife both received benefits, the average for the family was \$104.80. Families consisting of a widowed mother and two children received on the average \$137.80.

The benefit awards for persons who came on the rolls for the first time in the past fiscal year are considerably higher than those given above for all beneficiaries. The higher amounts reflect the more liberal computation provisions of the 1950 and 1954 amendments, under which (1) it is possible to use only earnings after 1950 in the computation and (2) as many as 5 years of low earnings and periods of total disability may be dropped from the computation of the average monthly wage. Among beneficiaries on the rolls at the end of June 1956 whose benefits are based on earnings after 1950 with eligibility to omit years of lowest earnings, the average for a retired worker with no dependents receiving benefits was about \$76, for an aged couple about \$127, and for a widowed mother and two children about \$181.

THE DISABILITY FREEZE

The disability freeze provision of the Social Security Amendments of 1954 became effective on July 1, 1955, although applications could be filed at any time after the beginning of 1955. A person under an extended total disability who has had both substantial and recent covered work before disablement may, after a waiting period of 6 months, have his insurance rights preserved during the period in which total disability prevents him from performing any substantial gainful work. (This means that a period of total disability will not count against the disabled person in determining whether he or his survivors are eligible for benefits or in calculating the amount of the benefits.) By the end of June 1956 a period of disability had been established for 134,000 disabled workers. About 110,000 applications for a disability freeze were denied. About 36,100 persons who already were old-age beneficiaries had their benefits increased by the end of June 1956; the average increase was \$9.93 a month. The higher ben-

efits were attributable to the exclusion of a period of disability and also to the dropping of as many as 5 years of lowest earnings in the computation of the worker's average monthly wage when eligibility for such dropout stemmed from the disability freeze. About 13,100 monthly benefits payable to dependents of these retired workers and to survivors of workers who had established a period of disability before death were also increased because of the freeze. For the same reason, lump-sum death payments based on the earnings records of almost 4,500 deceased workers were increased by an average amount of about \$21.50 per worker.

THE PROTECTION PROVIDED

Of the population under age 65, 65.6 million were insured at the beginning of the calendar year 1956. Some 26.3 million of these people were permanently insured—that is, whether or not they continue to work in covered jobs they will be eligible for benefits at age 65 and their families are assured of protection in the event of their death. The remaining 39.3 million were insured but would have to continue in covered work for an additional period to make their insured status permanent. Nine out of 10 of the mothers and young children in the Nation were assured that they would receive monthly benefits in case of the death of the family earner.

Of the almost 14.4 million people aged 65 or over in the United States in December 1955, 54 percent were eligible for benefits under old-age and survivors insurance. Forty-three percent were actually receiving benefits, and 11 percent were working. The percentage of aged persons who are eligible is expected to rise to 69 percent by 1960.

THE COVERAGE OF THE PROGRAM

Approximately 69 million workers were covered by old-age and survivors insurance during the course of the calendar year 1956. An additional 1½ million people employed in the railroad industry earned social insurance protection under what, in effect, amounts to joint coverage of the railroad retirement and old-age and survivors insurance programs. Altogether, including State and local government and nonprofit employees for whom coverage is available on a group election basis and members of the Armed Forces, over nine-tenths of all persons in paid employment in the continental United States were covered or could have been covered by old-age and survivors insurance in June 1956. (Members of the Armed Forces were covered on the basis of gratuitous wage credits of \$160 a month for service before January 1, 1957, the effective date for regular contributory coverage for them.)

Of the workers not eligible for coverage by old-age and survivors insurance, about one-third were covered by other public retirement

programs—Federal, State or local. The remaining two-thirds—6 percent of the Nation's paid employment—were not covered by any public retirement program. Those without retirement protection under a public system consisted principally of self-employed persons whose annual net earnings were less than \$400 and of domestic and farm workers who did not earn sufficient wages from any one employer to meet the minimum coverage requirements of the law.

INCOME AND DISBURSEMENTS

Expenditures during the fiscal year totalled \$5,485 million, of which \$5,361 million was for benefit payments and \$124 million for administrative expenses. Total receipts were \$6,937 million, including \$6,442 million in net contributions, \$487 million in interest on investments, and \$7 million in transfers from the railroad retirement account. Receipts exceeded disbursements by \$1,452 million, the amount of the increase in the trust fund during the year. At the end of June 1956 the fund totalled \$22.6 billion.

Total assets of the trust fund, except for \$550 million held in cash, were invested in United States Government securities as required by law; \$2.6 billion were invested in public issues (identical with similar bonds owned by private investors), and \$19.5 billion were invested in special certificates of indebtedness bearing interest at the average rate paid on the total interest-bearing Federal debt at the time they were issued. The average interest rate on all investments of the trust fund at the end of the fiscal year was about 2.5 percent.

Administering the Program

The composite measurable workload of the Bureau in fiscal year 1956 was about 7 percent above 1955, reflecting the continuing large volume of work attendant upon the 1954 amendments to the program. Funds appropriated for Bureau operations were \$91,229,000; \$5,229,000 of this amount was a supplemental appropriation to cover the pay increase provided by Public Law 94, 84th Congress. Recruitment during the year was mainly to replace employees who had left the Bureau. Personnel on duty at the beginning of the year numbered 17,651; at the end of the year 17,797. District offices providing direct service to the public increased by 7, from 532 to 539. In addition to district offices, 41 resident stations and 3,538 contact stations were in operation.

The major administrative circumstance of the year was the successful follow-through in processing heavy workloads and in establishing several new operations consequent to the 1954 amendments.

The issuance of new and duplicate account-number cards remained at high levels. About 16 million employer reports of wages paid to

employees were received, and about 230 million earnings items (including self-employment income) were posted to individual earnings records. Despite the inexperience of the farm groups with record keeping, reports were on the whole well-prepared.

Applications for benefits remained high—about 2 million during the year. The time required to process these claims, which had been increased by the earlier rush of 1954 amendment work, returned to normal during the first part of the year. However, claims receipts in the last quarter of the year peaked very steeply, mainly because self-employed farmers were becoming eligible for benefits for the first time, and during the last several months of the year the number of claims in process increased substantially.

A new operation under the 1954 amendments was the receipt from beneficiaries of annual reports of earnings in excess of the amount permitted by the retirement test established by the 1954 amendments. Beneficiaries were urged to report currently during the year so that necessary withholding of benefits might be done currently and were required to make, at the end of the calendar year, an annual report of earnings when they earn above \$1,200. Actions were taken to get the necessary report forms into the hands of beneficiaries, to establish controls to check nonreporting, and to process a concentrated load of report receipts and make the necessary benefit suspensions, deductions, and reinstatements in the space of several months.

Under the terms of the disability freeze provision of the 1954 amendments—the provision which preserves the benefit rights of workers suffering from long-term total disability—disability determinations are made by the States except that in the case of foreign claimants and railroad career employees determinations are made by the Bureau of Old-Age and Survivors Insurance. In the early stages of the program, the Bureau made determinations in certain classes of cases now processed by the States—principally the backlog cases of applicants who had been disabled for long periods of time. By February 1956, agreements for this operation had been completed with agencies in all States, the District of Columbia, Alaska, Hawaii, and Puerto Rico. The staffs of these agencies engaged in disability freeze work were equivalent to more than 200 positions nationwide. From the beginning of the program early in calendar year 1955 through this fiscal year, nearly a quarter-million applications for establishment of a period of disability were processed to allowance or denial. As was expected, during the initial year of operation, the Bureau did all of the processing in 4 out of 5 cases. The cases processed by the Bureau represented those not covered by State agreements and were primarily the backlog cases.

Total administrative costs for the old-age and survivors insurance program in fiscal year 1956, including Treasury Department costs,

were approximately \$124,300,000. This total was less than 2 percent of the contributions to the trust fund. The composite measurable workload of the Bureau has increased by 116 percent since 1950, while personnel has increased by only 59 percent. This record of increased productivity is also reflected by lower salary costs in relation to workload and it accounts in major part for the continuing low level of administrative costs compared to contribution receipts.

Among the more dramatic recent actions to reduce costs was the successful installation during the year of large-scale electronic data-processing equipment in the earnings record operation. This action continues and advances the Bureau use of automation in its repetitive mass operations. The electronic equipment, by carrying earnings information in tape form, eliminated the need for setting up a second summary punch-card file for 100 million earnings accounts. The cost of new cards and cabinets for establishing this file in 1957 would have been \$335,000, and maintenance of the file would have cost \$250,000 a year. Also, the use of electronic data-processing equipment to handle earnings information reported incorrectly will substantially reduce the number of items for which correct information cannot be determined in internal operations. When the procedure has been fully installed and experience has been obtained, savings of about \$1 million a year are expected. A third operation in which the equipment will be put to immediate use is the computation of benefit amounts. These computations will be made at the rate of 16 a second, compared to 60 a minute on the equipment previously used.

Use of electronic equipment opens up the possibility for large employers, as they make data-processing installations, to reduce costs by reporting employee earnings for social security purposes on magnetic tape instead of the present method of tabulating the reports on paper forms. Arrangements were completed with one large employer to begin this type of reporting in the last quarter of the year.

On July 1, 1955, the writing of the benefit checks was transferred from the Treasury disbursing office in Birmingham to the Bureau's area office in that city. A reduction in processing costs is made possible through the elimination of overlapping balancing and control operations, the use of addressograph plates for the preparation of forms that previously had to be typed, and work simplifications in the certification of claims and maintenance of the beneficiary rolls that have been made possible by combining accounting and disbursing functions. The Department has recommended, on the basis of this experience, the transfer of the Treasury check-writing operations to the other five area offices of the Bureau.

The project of erecting a new building on the outskirts of Baltimore, to house all the Baltimore operations now scattered in ten different buildings is proceeding. The architectural firms are expected to

complete the final detailed working drawings in the spring of 1957. After checking by the Public Buildings Service and assuming sufficient funds are available to be spent on the building, everything will be in readiness to solicit construction bids. It will take about 2 years to construct the building.

Fact-Finding for Program Evaluation and Improvement

SIMPLIFICATION STUDY

At present the basic old-age and survivors insurance legislation is a product of 7 sets of major amendments and approximately 20 other less significant amendments. As this program expanded, complexities have been introduced, making difficult not only its administration, but also its understanding by the public.

An intensive study of the program has been instituted to determine how and where the program can be made simpler and more rational.

A STUDY OF FARM COVERAGE

During the last 6 months of 1955, the Bureau of Old-Age and Survivors Insurance made an extensive study to evaluate the effectiveness of the agricultural coverage provisions of the Social Security Amendments of 1954. These provisions extended old-age and survivors insurance coverage to self-employed farm operators for the first time and broadened the coverage of agricultural workers to include all who were paid at least \$100 in cash wages during a year by a farm employer. Considerable interest in the experience under these provisions had been expressed not only in the Congress but also among many farm groups.

The Bureau's study was designed to obtain and analyze information on how the agricultural coverage provisions were working out, and on the prospects for complete and accurate reporting of covered farm earnings. Special reports were obtained from all of the district social security offices; farmers in 24 States were consulted about their coverage and the coverage of their farm workers; and contacts were made with crew leaders, hired farm workers, and leaders in farm organizations and in rural communities. The results of this special study, together with information drawn from the Bureau's administrative experience with the provisions for coverage of farmers, were evaluated in a special report submitted to the Committee on Finance of the Senate and to the Committee on Ways and Means of the House of Representatives.

About 3 million farmers had sufficient self-employment income to be covered by old-age and survivors insurance under the 1954 amendments. In spite of the previous lack of understanding of old-age and survivors insurance among farm people, it was clear by the end of

1955 that the provisions for coverage of farm operators were working out satisfactorily and that only relatively minor improvements in the coverage provisions were needed.

Of a total of slightly more than 4 million persons employed at paid farm work during the course of a year, about 2.2 million were covered by social security. Those still excluded from coverage are mainly people who are not normally in the labor market—such as students, housewives, and children—although they do some farm work at one time or another during the year. About half a million farmers employed covered workers. The study showed that the great majority of these employers had experienced no serious problems in fulfilling their social security responsibilities. About 5 out of every 6 employers apparently needed to make only minor adjustments in their record-keeping system and were using practicable and workable procedures to facilitate compliance with the farm-worker coverage provisions. The remaining employers encountered difficulties of varying degree in obtaining and recording the information necessary to determine which of their workers were covered.

WORK GROUP ON AGING

During the year the Bureau set up a work group to review its activities in the area of aging and to develop recommendations as to further activities that might be undertaken in this area. The work group's report, designed to aid administrative planning, includes a brief description of the numerous ways in which the Bureau's field organization has provided leadership and services and otherwise has participated in community affairs related to aging. The report also summarizes the Bureau's research and program-planning activities that have dealt with various aspects of the aging problem.

Areas considered include: (1) Increased participation by the Bureau in community and regional programs relating to the problems of older people, particularly through a more uniform level of activity in all district offices; (2) continued emphasis on the Bureau's public information activities that relate to the interests of the aged; (3) expansion of the Bureau's research on aging through field surveys, studies based on the Bureau's records, and studies of the social and economic aspects of old age in cooperation with other governmental and non-governmental agencies; and (4) increased participation by the Bureau staff in conferences and meetings dealing with the problems of the aging.

REFERRAL PRACTICES OF DISTRICT OFFICES

The Bureau has, from the beginning of the program, assumed a responsibility for referring to the appropriate public or private agency

people who come to district offices and ask where they can get help with problems not directly related to old-age and survivors insurance. This year there has been completed the second of two studies in different parts of the country of the referral service provided by district offices. From these studies it appears that many people come to the local offices for this kind of service even when they have no problems immediately related to old-age and survivors insurance to discuss. Referrals are made to a wide range of agencies with the largest proportion being made to related programs concerned with income maintenance—unemployment compensation, public assistance, and the employment services. The findings derived from these studies will serve as the basis for planning ways in which the Bureau offices can more effectively help people by referral service.

Legislative Developments During the Year

The fiscal year 1956 was one of intense legislative activity. The most important measure affecting old-age and survivors insurance was H. R. 7225, a bill that was passed by the House in July 1955 and passed by the Senate early in fiscal 1957. The bill—known as “The Social Security Amendments of 1956” (P. L. 880)—was signed by the President on August 1.

MAJOR PROVISIONS OF THE 1956 AMENDMENTS

Extension of coverage.—More than 600,000 additional persons who have self-employment income from farming were afforded coverage under old-age and survivors insurance through changes made by the 1956 legislation. One change extended coverage to certain income, previously excluded as rental income, derived by owners or holders of farm land who participate materially in the farm production under an arrangement with the tenant or share farmer who produces the commodities on the land. This provision extended coverage to about 400,000 persons. Another change, the extension of the optional method of computing farm self-employment income for social security purposes, made coverage available to about 200,000 farm operators. This option is designed to preclude the need for small farmers to keep special records for social security purposes, and also to enable both large and small farmers to maintain their old-age and survivors insurance protection during years of low farm earnings. The new provision permits farm operators whose gross farm income in a year is at least \$600 and not more than \$1,800 to deem their farm net earnings to be two-thirds of their gross farm income; if gross income exceeds \$1,800 and net earnings are less than \$1,200, net earnings may be deemed to be \$1,200. The provision previously in effect was restricted to farmers whose gross farm income was at least \$800, with half, rather

than two-thirds, of the gross farm income (up to \$1,800) the maximum that could be reported for old-age and survivors insurance purposes under the option. The use of the option, which formerly was limited to individual farmers who reported their income on a cash basis for income-tax purposes, was extended to members of farm partnerships and to farmers who report on an accrual basis. The 1956 amendments also provided that share farmers are, generally speaking, self-employed persons for social security purposes, thus confirming an interpretation which had been given to previous law.

The amendments extended coverage to more than 200,000 self-employed professional people, including self-employed lawyers, dentists, osteopaths, chiropractors, veterinarians, naturopaths, and optometrists. The amendments continued the exclusion of doctors of medicine from old-age and survivors insurance coverage.

A number of changes in the law resulted in making coverage possible for several relatively small groups of employees. These groups include: additional employees of State and local governments and of nonprofit organizations, additional clergymen in foreign countries, and American employees of a foreign company in which an American corporation holds 20 percent or more (rather than 50 percent as in previous law) of the voting stock. Coverage was also made available to employees covered by the retirement systems of the Tennessee Valley Authority and the Federal Home Loan Banks. For both groups, coverage would be subject to approval by the Secretary of Health, Education, and Welfare of a plan for equitable coordination of their special staff retirement systems with old-age and survivors insurance.

Changes in coverage of farm workers.—The 1956 amendments made three changes in the provisions for coverage of farm workers. Under the new coverage test, a farm worker is covered under old-age and survivors insurance with respect to his work for a farm employer if his cash pay from the employer in a year is \$150 or more, or if the worker performs agricultural labor for the employer on 20 or more days during the year for cash wages computed on a time (rather than on a piece-rate) basis. Under the law previously in effect, a farm worker was covered for his work for a farm employer if his cash pay from the employer amounted to at least \$100 a year. The amendments specifically designate "crew leaders" as the employers of the crews or workers they furnish to perform agricultural labor for other persons, provided the crew leader pays the workers and there is no written agreement specifying that the crew leader is an employee of the person for whom the agricultural labor is performed. A person who is a crew leader under this provision is deemed to be self-employed with respect to his services in furnishing the crew members and any work he performs as a member of the crew. The amendments broaden the

previous exclusion from coverage of certain agricultural workers from Mexico and the British West Indies so that the exclusion now applies to the services of workers temporarily admitted from any foreign country to perform agricultural labor. The farm-worker coverage provisions as modified by these three amendments afford coverage to roughly the same number of farm workers as were covered under previous law.

Disability insurance benefits.—The 1956 amendments to the Act provide a new type of benefit—payable in certain cases of disability. Totally disabled workers between the ages of 50 and 65 who meet specified work and disability standards can receive monthly benefits under the old-age and survivors insurance program beginning with July 1957. It is estimated that about 400,000 people will be eligible to receive benefits for that month and that about 900,000 people will be receiving benefits by 1970.

To be “disabled” under the new law a worker must be unable to engage in any substantial gainful activity by reason of a medically determinable physical or mental impairment which can be expected to result in death or to be of long-continued and indefinite duration. A waiting period of 6 consecutive months of disability is required before benefits may be payable. In order to qualify for disability benefits a worker must be both fully and currently insured and also must have had 20 quarters of coverage during the 40-quarter period ending with the quarter in which the disability begins. These requirements are intended to limit the payment of disability insurance benefits to persons who have had a sufficiently long period of coverage under the program to indicate that they were dependent upon their covered earnings over an extended period before they became disabled and who have had sufficient recent coverage to indicate that their withdrawal from covered work was probably due to their disability.

The disability benefits program will be administered in close relationship with the vocational rehabilitation program. Applicants for disability insurance benefits will be referred to the vocational rehabilitation agency. The law contains special provisions designed to keep the disability benefits consistent with the objective of rehabilitation. A beneficiary who engages in remunerative work pursuant to a program for his rehabilitation carried on under a State-approved vocational rehabilitation plan will, up to a year after he engages in such a program, not be considered as able to engage in substantial gainful activity solely by reason of the services rendered under this rehabilitation program. A rehabilitant will thus have a year to test his earning capacity without losing his disability benefits. On the other hand, disability benefits will not be paid to anyone who, without good cause, refuses rehabilitation services which have been made available to him under a State-approved vocational rehabilitation plan. For the pur-

pose of guarding against a pyramiding of certain benefits that may be payable to an individual under various public programs on account of disability, the disability benefit under old-age and survivors insurance is reduced by the amount of any other Federal benefit or workmen's compensation benefit that is based on the individual's disability.

A distinctive feature of the disability provision is the separate financing system. Beginning with 1957, an additional tax of $\frac{1}{2}$ of 1 percent on wages ($\frac{1}{4}$ each from employee and employer) and $\frac{3}{8}$ of 1 percent on self-employment income is imposed to finance the disability insurance program. This additional tax will be deposited in the newly created Federal disability insurance trust fund. Disability benefits and the costs of administering the disability benefits program will be paid from this fund.

Benefits for adult children who are disabled before attaining age 18.—The 1956 amendments made an important change in the eligibility requirements for child's insurance benefits. Until now, child's benefits could not be paid after the child attained age 18. Under the new law, child's insurance benefits are payable, beginning in January 1957, to dependent children age 18 and over who become totally disabled before age 18. Also, mothers of children entitled to benefits under the new provision can receive mother's benefits on the same basis as mothers of children under 18.

It is estimated that about 20,000 children age 18 or over will be added to the benefit rolls in the first year; after the first year, annually about 2,500 disabled children will be either currently reaching age 18 and continued on the benefit rolls or added to the rolls when the insured parent dies or becomes entitled to old-age insurance benefits.

To qualify for these benefits a child must meet the same definition of disability as a disabled worker. The child's disability must have become total before he reached age 18 and must have continued uninterruptedly after age 18. The child must have been or, upon filing application, would have been entitled to child's benefits before he reached age 18 *or* it must be proved that the child was receiving at least half of his support from the worker when the child applied for benefits or when the worker died. Like benefits for disabled workers, disabled child's benefits will be adjusted if any other Federal benefit or workmen's compensation payment is made on the basis of the child's disability. A disabled adult child will be referred to the vocational rehabilitation agency and his benefits will be suspended if he refuses, without good cause, to accept offered rehabilitation services. Benefits for disabled adult dependent children and the costs of administering the provision for these benefits will be paid from the old-age and survivors insurance trust fund.

Benefits for women at age 62.—The 1956 amendments reduced to 62 the age at which women may qualify for benefits. As a result, an

estimated 860,000 additional women could, if they filed a claim, draw benefits for November 1956, the effective date of this provision.

Widows and dependent mothers of deceased workers may receive full benefits at 62. Working women and wives, on the other hand, may draw benefits prior to 65 if they elect to receive actuarially reduced benefits (in such cases the reduced benefit is payable both before and after age 65). As under present law, wives with child beneficiaries in their care can draw full benefits regardless of age.

The old-age insurance benefit of a woman—that is, the retirement benefit payable to her on the basis of her own earnings record—is reduced by $\frac{5}{9}$ of 1 percent for each month before age 65 for which she draws the benefit. A woman who elects to receive an old-age insurance benefit for the month in which she attains age 62 will thus have her benefit reduced by 20 percent. A wife's benefit is reduced by $\frac{25}{36}$ of 1 percent for each month before attainment of age 65 for which she draws the benefit; if the benefit starts at age 62 it will thus be reduced by 25 percent.

If provision had been made for paying full-rate benefits to all women at age 62, the cost of the program would have been significantly increased. Since benefits to wives and women workers are payable on an actuarially reduced basis there was little increase in the cost of the program.

Suspension of benefits of certain aliens.—Under the 1956 legislation benefit payments to certain aliens not eligible for benefits for December 1956 who are outside the United States for more than 6 consecutive months will be suspended. Benefit payments will not be suspended if the alien is a citizen of a country that has a social insurance or pension system which is of general application in the country and which provides for the payment of periodic benefits or their actuarial equivalent to otherwise eligible American citizens who leave that country. They will not be suspended if the individual upon whose earnings record the alien is receiving benefits has at least 10 years of employment under social security or has lived in the United States for at least 10 years, or if suspension would violate an existing treaty between the United States and another country. Time spent outside the country in the active military or naval service of the United States will not cause suspension of an alien's benefit. If an alien whose benefit is suspended dies outside the United States, no lump-sum death payment will be made.

Conviction for subversive activities.—The amendments provide that courts may, at their discretion, as an additional penalty, terminate an individual's benefit rights based on earnings prior to his conviction for certain Federal crimes, such as espionage, sabotage, treason, sedition, and other subversive activities. Any wages and self-employment income reported after the individual's conviction will be

treated as a new earnings record, on which, if he meets all conditions of eligibility, he can establish new benefit rights. Benefit rights of other members of the individual's family who are otherwise eligible will not be affected by his conviction. The provision applies only to convictions for crimes committed after August 1, 1956, the enactment date of the Social Security Amendments of 1956.

Removal of certain employment from coverage.—The new law excludes from coverage after June 30, 1956, any service in the employ of any organization registered (or required to register) under the Internal Security Act of 1950 as a Communist-action, Communist-front, or Communist-infiltrated organization.

Interest rate on trust fund investments.—The interest rate on trust fund investments will be changed to reflect the essentially long-term character of the investments. The interest rate will be equal to the average rate of interest borne by all marketable interest-bearing obligations of the United States not due or callable until after the expiration of 5 years from the date of original issue. Under the previous law, the rate of interest for trust fund investments is equal to the average rate borne by all interest-bearing obligations of the United States without regard to maturities or marketability. To make it clear that bonds purchased by the trust fund are as much a part of the public debt as any other obligations of the Federal Government, they are designated as "public debt obligations for purchase by the Trust Fund" in place of the designation under the old law, "special obligations issued exclusively to the Trust Fund."

Advisory Council on Social Security Financing.—Provision is made for the establishment periodically of Advisory Councils on Social Security Financing to review the status of the Federal old-age and survivors insurance and disability insurance trust funds in relation to the long-term commitments of the program. The first Council will be appointed after February 1957 and before January 1958. The Secretary of Health, Education, and Welfare will appoint its members. They are to represent employers and employees (as far as possible, in equal numbers) and self-employed persons and the public. The Commissioner of Social Security is to serve as Chairman of the Council. The Council's report will be included in the annual report submitted to the Congress by the Board of Trustees.

A new Council, similarly composed and with the same functions, will be appointed by the Secretary not later than 2 years before each scheduled increase in the social security tax rate. Each Council will report its findings and recommendations not later than January 1 of the year preceding the one in which the tax increase is scheduled.

Coverage of the uniformed services.—The major extension of coverage approved by the 84th Congress resulted not from Public Law 880

but rather from Public Law 881, a law designed primarily to revamp survivor benefit programs for members of the uniformed services. Members of the services, numbering nearly 3 million, were brought under regular contributory old-age and survivors insurance coverage for the first time by the new law, and the social security protection thus provided was made the base for a simplified and improved structure of military survivor benefits. Although the old-age and survivors insurance coverage of servicemen is restricted to their basic pay and does not apply to wages in kind, in other respects the new provisions follow the recommendations made earlier by the Committee on Retirement Policy for Federal Personnel and endorsed by President Eisenhower. Under legislation previously enacted as a stop-gap measure, gratuitous old-age and survivors insurance wage credits of \$160 a month were provided, under certain conditions, for service in the Armed Forces performed after September 15, 1940, and before April 1, 1956. Public Law 881, 84th Congress, extended the period for granting the gratuitous \$160 wage credits to include military service after March 1956 and before January 1957, thus bridging the gap between the expiration date of the earlier provisions and the beginning date of contributory coverage. The new law also provided for reimbursement of the Federal old-age and survivors insurance trust fund for expenditures resulting from the gratuitous wage credit provisions. These expenditures include approximately \$200 million already paid out of the trust fund by the close of the fiscal year and more than \$600 million in expected future disbursements.

Proposals to cover Federal civilian employees.—Early in 1956, Administration-sponsored bills were introduced in the Congress which would have extended old-age and survivors insurance to Federal employees covered by the civil service retirement system. At public hearings before the Post Office and Civil Service Committees of the Senate and the House of Representatives, the Department and the Civil Service Commission both recommended that social security protection be extended to the civilian employees of the Federal Government. The Administration's spokesmen pointed out that the retirement and survivor protection of Federal employees would be considerably improved if they, like 13 million or more employees in private industry, had old-age and survivors insurance coverage in addition to their staff retirement system. They also emphasized that this coverage would provide more equitable benefits to employees who shift between Federal employment and private industry. The measure passed by the Senate, however, liberalized the civil service retirement system without extending old-age and survivors insurance to employees covered under the system. The House of Representatives later passed a bill similar to that approved by the Senate, and the legislation eventually approved (Public Law

854) contained no provisions for extending old-age and survivors insurance to Federal employees. The more than 2 million Federal civilian employees now constitute the largest group without old-age and survivors insurance coverage. Thus, Federal employment is now the only major type of employment in which a worker does not acquire social security coverage and may lose his previously acquired protection. Until an equitable plan for coordination of old-age and survivors insurance and Federal retirement systems is put into effect, many Federal employees will have less adequate retirement and survivor protection than employees in private industry who are covered by both social security and staff retirement systems.

Status of the plan for combined reporting of social security and withholding taxes.—The Department of Health, Education, and Welfare and the Treasury Department submitted to the Congress a proposal that would make possible integrating old-age and survivors insurance wage reporting with annual reporting of income taxes withheld. Under this proposal the report of each employee's wages made annually on the withholding-tax form (Form W-2) would provide the information needed for the social security earnings records, thus making it possible to eliminate the present detailed quarterly wage reports filed by employers for old-age and survivors insurance. In 1951, the Hoover Commission estimated that as a result employers would save about \$22 million a year. The workload of wage report items to be processed by the Government would also be reduced. Recent estimates indicate that in fiscal year 1959, the number of wage items that would have to be processed under the present quarterly reporting provisions by the Social Security Administration for wage record purposes would amount to about 245 million. A change to annual reporting would eliminate the need for processing at least one-half this number of wage items. The reduction would be three-fourths if it were not for the fact that a substantial number of employees work for more than one employer in the course of a year.

Under the proposed plan, the Bureau of Old-Age and Survivors Insurance would mechanically match the reports made by employers on Forms W-2 with those copies filed by employees with their individual tax returns. The purpose of this matching operation would be to discover errors in reporting wages under old-age and survivors insurance and income-tax withholding. The Government would benefit through improved tax administration. Also, employees would benefit because the plan would provide a comprehensive mechanical check each year on the accuracy of the amounts of earnings reported for their social security records. The employees' receipts on Form W-2 would be an exact copy of the employers' social security report. The employee could check this information against his own records

and obtain a corrected copy of the Form W-2 to attach to his income-tax report; automatic reconciliation of discrepancies would result.

The plan requires that the definition of insured status and related provisions of old-age and survivors insurance be put on an annual rather than a quarterly basis. The necessary changes were included in the draft bill submitted to the Congress.

Financing the Program

With the amendments to the old-age and survivors insurance program which became law on August 1, 1956, Congress modified the schedule of contribution rates so as to continue to reflect its intent that the system be self-supporting from the contributions of covered workers and employers. The revision in the contribution schedule was arrived at after careful review of long-range actuarial cost estimates prepared for use by the congressional committees in their legislative considerations. As indicated previously, separate arrangements have been established for the financing of old-age and survivors insurance benefits and of disability insurance benefits.

OLD-AGE AND SURVIVORS INSURANCE BENEFITS

Since enactment of the Social Security Amendments of 1954, three important changes have taken place which will result in higher income to the system than was expected according to the long-range actuarial cost estimates on which the 1954 contribution schedule was based. First, the present cost estimates are based on earnings levels in 1955, which are about 15 percent higher than the 1951-52 earnings levels on which the earlier estimates were based. As earnings levels rise, relatively more is collected in contributions than is paid out in higher benefits. This is due to the fact that the benefit formula is weighted in favor of those with low average wages. As a result of this weighting, benefit amounts, expressed as a percent of a worker's wage, decline as his average wage increases. As earnings levels rise, there is a corresponding rise in contribution income and some, but proportionately smaller, increase in benefit outgo.

Second, the change made in the method of determining the interest rate of securities purchased for investment by the trust funds will result in higher interest earnings. Accordingly, the present cost estimates are based on a yield of 2.6-percent interest as compared with the 2.4-percent rate on which the earlier estimates were based. Third, the extension of coverage, including that of the uniformed services under P. L. 881, will result in relatively more being collected in contributions than is paid out in benefits. This occurs because under limited coverage those who move in and out of covered employment have low average monthly wages in covered employment and re-

ceive the advantage of the weighted benefit formula. Under extended coverage, their wages in covered employment will be greater with a corresponding increase in contribution income. There will be some, but proportionately smaller, increase in benefit outgo. Over a period of time the contribution income will increase more than benefit outgo.

Expressed as a level premium percent of payroll, this additional income will be somewhat more than is needed to meet the larger outlays for old-age and survivors insurance benefits resulting from the amendments. Accordingly, the schedule of contributions that was established in 1954 has been retained without change.

The level premium cost of these benefits on an intermediate basis is 7.43 percent of payroll. Contributions income is equivalent to 7.23 percent of payroll on a level basis. This leaves an actuarial insufficiency of 0.20 percent of payroll. (There was an actuarial insufficiency of 0.38 percent of payroll when the 1954 amendments were adopted.)

DISABILITY INSURANCE BENEFITS

The level premium cost of the disability insurance benefits on an intermediate basis is 0.42 percent of payroll. Contribution income has been specifically allocated to finance these benefits; this income is equivalent to 0.49 percent of payroll, thereby producing an actuarial surplus of 0.07 percent of payroll.

The difficulties involved in making exact predictions of the actuarial status of a program that reaches into the distant future are widely recognized. If different assumptions as to, say, interest, mortality, disability, or earnings had been used, different results would have been obtained. Accordingly, no one set of estimates should be looked upon as final. As economic and other conditions change, the Department will continue to prepare new cost estimates reflecting the latest information available.

Public Assistance

The 1956 amendments to the Social Security Act provide for far-reaching and significant changes in the public assistance programs. The objectives of the programs have been broadened by encouraging the States to provide more adequate medical care and appropriate social services to help needy persons achieve more independent living, and in general, to strengthen family life. The use of Federal funds has been authorized to assist States in making grants to schools for training in order to increase the skill of public assistance personnel. The amount of Federal funds available to the States for public assistance programs has also been increased. In addition, an amend-

ment to another title, which has great significance for all the social security programs, provides for the study of the causes of dependency and the development of constructive methods of dealing with it.

Legislative Developments

THE 1956 AMENDMENTS

Amendments relating to public assistance include the following:

1. An increase in Federal funds in each program. (a) The Federal share in State assistance payments for old-age assistance, aid to the blind, and aid to the permanently and totally disabled was increased to $\frac{4}{5}$ of the first \$30 (raised from \$25) of a State's average monthly payment plus half of the balance up to the new maximum of \$60 (raised from \$55). *Effective October 1, 1956, through June 30, 1959.* (b) The Federal share in State assistance payments for aid to dependent children was increased to $\frac{14}{17}$ of the first \$17 (raised from $\frac{4}{5}$ of the first \$15) of a State's average monthly payment plus half of the balance up to the new maximums of \$32 for the first child and the same amount for the needy relative with whom the child is living (raised from \$30) and \$23 for each additional child (raised from \$21). *Effective October 1, 1956, through June 30, 1959.* (c) The ceiling on Federal matching for Puerto Rico and the Virgin Islands was raised 25 percent. *Effective July 1, 1956.* No change was made in the present special matching formula for individual payments in these jurisdictions. See 4 (c) below.

2. A new provision in each program for separate Federal sharing in State medical care costs paid directly to suppliers of medical services. *Effective July 1, 1957.* In old-age assistance, aid to the blind, and aid to the permanently and totally disabled, a Federal share (on a 50-50 basis) of a State's expenditures for medical care in behalf of recipients was authorized up to a monthly maximum determined by multiplying \$6 by the total number of recipients of cash or medical care under the program for the month. In aid to dependent children, the Federal share is one-half of such expenditures up to a monthly maximum of \$6 times the total number of needy relatives, plus \$3 times the total number of children receiving aid for the month. This new provision, recommended by the Administration, is in addition to the one for sharing in money payments to assistance recipients.

3. Inclusion in the statement of purpose in each of the four public assistance titles of the objective of furnishing appropriate public welfare services to help assistance recipients toward more independent living. (a) In aid to dependent children, the emphasis is on helping to maintain and strengthen family life and on assisting the needy relative caring for the child to attain maximum self-support or self-

care consistent with the parental role; in old-age assistance, on achieving increased self-care; and in aid to the blind and aid to the permanently and totally disabled, on assisting individuals toward self-support or self-care. *Effective August 1, 1956.* (b) The authority of the Federal Government to participate in a State's costs in providing agency staff services to help needy people achieve increased self-care or self-support was clarified. *Effective August 1, 1956.* (c) The States are required to outline the services, if any, provided toward these objectives under each of the assistance programs and, except in old-age assistance, the steps taken to assure maximum use of other agencies providing similar or related services. *Effective July 1, 1957.*

4. The aid to dependent children program was broadened through: (a) Inclusion of additional relatives (first cousins, nephews, and nieces) with whom the needy child may live and receive federally aided assistance. *Effective July 1, 1957.* (b) Deletion of the limitation of Federal sharing in assistance expenditures for children between the ages of 16 and 18 to those who are regularly attending school. *Effective July 1, 1957.* (c) Extension to Puerto Rico and the Virgin Islands of provisions for Federal sharing in aid to dependent children payments with respect to the needy relative with whom the dependent child is living. *Effective July 1, 1956.*

5. A new provision for Federal funds to train personnel for public assistance programs which (a) provides for allotments to States on the basis of population, need for trained personnel, and financial need, and (b) authorizes payment from the allotments of 80 percent of expenditures for State grants to public or other nonprofit institutions of higher learning for training of personnel employed or preparing for employment in public assistance programs, for establishing fellowships or traineeships (directly or through grants), and for providing special short-term courses of study. *Effective July 1, 1957, for 5 years.*

STATE LEGISLATIVE CHANGES

While most of the State legislatures met during the year, the measures enacted affecting the public assistance programs were few in comparison with those passed in recent years. However, some of this year's measures were important.

For example, several States expanded the scope of their assistance programs. The establishment of a federally aided program of aid to dependent children in Nevada extended this potent force for strengthening family life into every jurisdiction in the Nation. Two States, Florida and Nebraska, began programs of aid to the permanently and totally disabled during the year, and Federal aid was approved on a retroactive basis for the Maine program which began in April 1955. The number of States now administering this program

is 45. Kentucky also developed a plan for a new program of aid to the permanently and totally disabled, and Texas prepared a constitutional amendment that would empower the legislature to establish such a program.

A bill to open public assistance lists to limited public inspection passed by the West Virginia Legislature was vetoed by the Governor. No additional States adopted legislation permitting similar action, and the previous total—31 States—still remains. Several States amended their earlier provisions.

Financing of medical care for public assistance recipients was also the subject of legislation in several States. Many States have already begun planning for legislative changes necessary to participate in the new provisions of the 1956 amendments to the Social Security Act.

Trends in Caseload and Expenditures¹

About 5.7 million persons—3.4 percent of the total civilian population or approximately 1 in 19—received some form of public assistance in June 1956. There was a decline of 69,000 in the total caseload from that of a year earlier even though the aid to the blind and aid to the permanently and totally disabled programs showed increases. Seasonal influences were reflected during the winter months by increases in the aid to dependent children and general assistance programs. The year's peak of 5.9 million persons reached in March was nearly 200,000 below the total in the peak month in the preceding year.

Expenditures for assistance payments from Federal, State, and local funds during fiscal 1956 amounted to \$2.8 billion, representing about nine-tenths of one percent of personal income payments in the Nation during 1955. The Federal share of this expenditure was \$1.4 billion. The 2.5 percent increase in total expenditures reflected increases in average payments in each of the assistance programs except general assistance, due in part to increasing expenditures for medical care through vendor payments and higher standards of assistance in some States.

OLD-AGE ASSISTANCE

Old-age assistance was received by 2,524,000 persons in June 1956, a decrease of about 25,000 persons, or 1.0 percent, from the number receiving aid in the previous June. The caseload rose slowly through November 1955, largely as a result of an expanded program in Alabama, and then declined throughout the remainder of the year. Only six States had higher caseloads at the end of the year than at the

¹ Caseloads, averages, and total expenditures in all programs except general assistance are based on data which include vendor payments for medical care and cases receiving only medical care.

beginning. The national average monthly payment for old-age assistance was \$54.29 in June 1956 as compared with \$52.30 a year earlier. Payments ranged from a low of \$28.45 in West Virginia to a high of \$90.18 in Connecticut.

AID TO DEPENDENT CHILDREN

Aid to dependent children was received by 614,000 families in June 1956. Although the number of children receiving aid rose slightly, there was a decrease of about 6,600 families, or 1.1 percent from the preceding June. A seasonal rise began in December 1955, but the year's peak of 617,000 families, reached in May 1956, was 9,000 below the peak in fiscal 1955. More than half the States had lower caseloads at the end of the year than at the beginning. The national average payment in June 1956 was \$89.27 per family (\$24.35 per person) as compared with \$86.78 per family (\$24.04 per person) in June 1955. Average payments per family ranged from \$27.69 in Mississippi to \$144.96 in Wisconsin.

AID TO THE BLIND

Aid to the blind was received by 105,800 persons in June 1956, an increase of about 2,000 or 1.8 percent during the year. The caseload increased slowly but rather steadily, and at the end of the year only 22 States had fewer recipients than in June 1955. The national average assistance payment in June 1956 was \$60.42 as compared with \$57.41 in the previous June. Average payments ranged from \$32.44 in West Virginia to \$103.27 in Massachusetts.

AID TO THE PERMANENTLY AND TOTALLY DISABLED

Aid to the permanently and totally disabled was received by 258,000 persons in June 1956. The increase of 21,000 persons, or 9.1 percent, was due in part to the initiation of new programs in a few States, liberalization in policy provisions in some States, and the continuing growth of a relatively new program. The national average monthly payment was \$56.72 in June 1956, as compared with \$54.93 a year earlier. Average payments ranged from \$24.59 in Mississippi to \$118.42 in Connecticut.

GENERAL ASSISTANCE

About 290,000 cases received State and/or locally financed general assistance in June 1956, a decrease of 20,000 cases or 6.5 percent from the preceding June. A seasonal rise in the caseload began in November 1955 and reached a peak of 336,000 cases in February; this, however, was 45,000 cases lower than the peak reached in the preceding year. There was a decrease in the national average payment per case from \$53.78 in June 1955 to \$51.94 in June 1956, even though the average

per person increased slightly. Average payments per case ranged from \$13.95 in Arkansas to \$76.20 in New York.

OASI BENEFICIARIES RECEIVING SUPPLEMENTARY ASSISTANCE PAYMENTS

About 516,000 beneficiaries of old-age and survivors insurance also received old-age assistance in February 1956 to supplement insurance benefits insufficient for their basic needs or to meet special needs. They represented a little more than a fifth (20.4 percent) of all old-age assistance recipients in February 1956, as compared with 489,000 or 19.2 percent a year earlier. The national average old-age assistance payment for recipients receiving both insurance and assistance payments was less than for those receiving only old-age assistance—\$44.74 compared with \$56.39.

In addition, about 32,600 families received both benefits under the old-age and survivors insurance program and assistance payments under the aid to dependent children program in February 1956—5.3 percent compared with 5.2 percent a year earlier. About 80 percent of these families were receiving insurance benefits based on the wage record of a father who had died, 17 percent on an aged retired father's work record, and 3 percent on the wage record of a deceased mother. The national average assistance payment in February to families receiving both types of payments was \$68.98 per family compared with \$90.75 for families receiving only assistance. The average family receiving both assistance and insurance benefits included more children than the average family receiving only assistance payments.

Program and Administrative Developments

The basic objective of the Bureau of Public Assistance is to assist the States in the development and maintenance of a sound and efficient public welfare service for the people of the country. This involves assuring that Federal public assistance grants to States are administered in accordance with the provisions and intent of the Social Security Act; assisting States in the application of Federal requirements and working with them toward improving their programs; securing information on a nationwide basis about program operations for reporting and for use in advising officials of the Department, the Congress, and others on various aspects of the public assistance programs; and cooperating with national, public, and voluntary agencies and other organizations in planning for the development of needed welfare services.

Within this framework of responsibility, special interest during the year was focused on planning for the strengthening of individual and family life through provision of financial assistance, including

costs of medical care, and through needed social services directed toward increased capacity for self-care and self-support, and prevention of needless physical deterioration or further personal and economic dependency. Special attention was given also to improving welfare services for the aging. In addition, activities were directed toward advancing efficient and effective State and local administration of public assistance programs and strengthening Bureau administration and facilitating services.

STRENGTHENING OF INDIVIDUAL AND FAMILY LIFE

While similar problems and disabilities are found among people in all income groups, those of needy people are often compounded by their inadequate financial resources. The experience of State public assistance agencies has shown that, although financial help is all that some needy people require in order to plan and live independently, for many others, the provision of money alone, without other types of help, can be expensive both in terms of dollars and cents and in human frustration and misery. Without additional help, some will remain wholly dependent on public assistance when they might be able to achieve improved self-care or increased self-support. Others will continue unnecessarily in deteriorating situations which are detrimental and costly not only to the individuals but to the community.

In most instances, the need for help beyond financial assistance grows out of the circumstances that lead people to apply for public assistance, and the kinds of problems they bring with them to the public welfare office. For example, more than two and a half million people who receive assistance are over age 65. These persons, almost half of whom are at least 75 years of age, have a high incidence of chronic illness, and frequently suffer from the loss of family and friends and from general exclusion from employment opportunities irrespective of their skills or physical vigor. In addition, about 614,000 families (including 1,708,000 children under 18) are receiving aid to dependent children because of family breakdown, or because one or both parents have died, disappeared, or are disabled. Another 258,000 persons, many of them heads of families, are permanently and totally disabled; about a third of these persons are under 50 years of age and nearly half are under 55. Approximately 106,000 persons are receiving assistance because they are blind; of this number more than half are less than 65.

The additional help these people need is mainly of three types. The first involves a review and evaluation of their situation to determine the extent of their financial need and the nature of other help needed: how much they can do for themselves, and how much they require from the public assistance agency or from other community resources. In this, the welfare agency seeks answers to such questions as: Can a

parent be helped to carry his parental responsibilities so that family life will be strengthened and the children have the opportunity for healthy growth and development? Can the physical disability which occasioned financial need be cured or alleviated with adequate medical care? Can vocational training be provided to develop new skills? What resources are available for improved housing? Can the aid of friends and relatives be enlisted to provide care at home so that an old person need not go to an institution?

The second type of help needed is assistance in locating and using other available resources suited to the applicant's needs. Some may be found in community programs or facilities and others in the person's own circumstances.

The third major type of help needed is with emotional problems. Some people cannot make effective use of either money or other resources until they receive help in dealing with problems that have prevented them from using the personal and community resources available to them. These are often the people whose behavior both occasions the most community concern and requires the most skillful help. Frequently these problems are particularly destructive to family life and to the normal growth and development of the children. The extent to which public welfare agencies can provide the help needed will depend largely on the extent to which they have qualified social work staff, and on the availability of services from mental health clinics and other psychiatric and casework services in the community.

Public assistance laws of most States provide statutory assumption of responsibility for both financial assistance and accompanying social services, and many State welfare programs include the provision for some services to public assistance applicants and recipients. The Bureau has long held that the availability of welfare services to needy people is essential to the achievement of the purposes of the public assistance programs and, therefore, to their proper and efficient administration. The public assistance amendments of 1956 relating to strengthening family life, self-support, and self-care clearly indicate Federal support of the State's efforts to make available the help people need to achieve the maximum independence of which they are capable.

In furthering this objective, work is under way within the Bureau on clarifying the scope and content of the social services needed by persons seeking or receiving public assistance, the role of the public welfare agency in providing these services, and criteria for Federal financial participation in the State's costs of such services. For example, interpretative materials are being developed on social services for the aging, including counseling, environmental adjustment, pro-

fective services, and services leading toward increased self-care. Effort is also being made to clarify policy and standards in relation to the use of homemaker services.

Much of this work involves the participation of other agencies. For example, the Bureau is working with the Children's Bureau in the further development of homemaker services for the needy aged and families with children, as well as in the maximum use of both the aid to dependent children and the child welfare services programs in providing other services for needy children. In the latter, the document on services in the aid to dependent children program, prepared jointly by the Bureau of Public Assistance and the Children's Bureau, was discussed at several joint regional meetings held during the year; the progress made by States in implementing the concepts in this document is being evaluated.

The continuing emphasis on the need for a wide range of welfare services has pointed up the necessity for adequately qualified social work staff. The 1956 amendment authorizing the use of Federal funds to assist States in meeting the cost of training personnel for public assistance programs will undoubtedly increase the number of adequately qualified persons available for work in public assistance agencies. Increasing emphasis is also being placed on the role that volunteers can play in extending and strengthening public welfare services. To encourage this participation, a new publication, "Citizen Participation in Public Welfare Programs, Supplementary Services by Volunteers," discusses the purposes of supplementary services and offers suggestions for developing volunteer services and for the orientation, training and supervision of volunteers.

IMPROVING WELFARE SERVICES FOR THE AGING

The federally aided public assistance programs are an important income-maintenance and social service resource of the Nation's aging population. About a sixth of the aged (65 years of age and over) are currently receiving old-age assistance. Other public assistance programs include a large number of persons in the 55-65 age range; nearly half the recipients of aid to the blind are 65 or over, most of the recipients of aid to the disabled are in late middle life—approximately a third of them at least 60 years of age—and in 7 percent of the families receiving assistance under the aid to dependent children program a grandparent is the relative caring for the child.

Old-age assistance is available to the needy aged through State or local departments of public welfare in every community in the United States and the Territories. This program also presents significant pioneering opportunities in providing other needed social services, since the majority of the needy aged live in small communities or rural

areas where almost no other organized community welfare services are available.

Increasing attention and activity are being directed toward meeting needs of the aging at Federal, State, and local levels.

At the national level.—The Bureau has been working with other Federal agencies in planning for and stimulating the development of needed services for the aging. It has been participating in planning and in joint activities carried on by a variety of national voluntary organizations such as the Family Service Association of America, the American Public Welfare Association's Committees on Aging and Medical Care, and the National Social Welfare Assembly's Committee on Aging, as well as by sectarian groups and national professional social work organizations.

The Bureau also has been developing technical materials relating to aging. For example, material on homemaker services, with specific emphasis on its use for aged persons who are sick, is being prepared with the help and advice of other public and voluntary agencies to assist States in developing this important home-care resource. Consideration is being given also to other services involved in helping aged persons remain in their homes. For example, the possibility of the broader use of surplus commodities for "meals on wheels" is being explored jointly by the Bureau and the Department of Agriculture.

Attention is being directed also to the problems of some aged persons requiring protection because of varying degrees of difficulty in handling their own affairs. An interbureau committee on guardianship within the Social Security Administration studied problems of guardianship in both the public assistance and old-age and survivors insurance programs. In addition, the Bureau gave special attention to State practice in helping aged persons secure the kind of protection needed, and explored difficulties experienced by States in the use of guardianship procedures. Also, representatives of 11 State public assistance agencies at a meeting in April shared their experience in operating under the money payment provisions of the Social Security Act in relation to aged persons of marginal competency. The discussion focused on effective methods of handling problems of individuals needing social and legal protection, and on identification of areas requiring further attention.

Work undertaken or under consideration in other subject areas having implications for serving the aging include: developing interpretative materials on social services for the aging; helping State mental health services and public welfare departments expand and improve their teamwork in arranging for those no longer in need of institutional care to return to the community; determining the types of institutional care needed by individual aged persons and the amount

of public assistance to be paid for such care; and exploring ways in which public assistance agencies can help toward the improvement and extension of institutional facilities under public, voluntary, and proprietary auspices. The report issued by the Bureau in June 1955 on "Recipients of Old-Age Assistance in Early 1953," containing State data on the social, economic, and health characteristics of the needy aged, has been used by both Federal and State agencies in legislative and program planning. Additional materials are being prepared on specific aspects of these data which describe the personal characteristics of recipients, the total costs of their requirements, the amount and types of their resources, and the responsibility that adult children are carrying in providing support for their aged needy parents.

At the State and local level.—Many State and local public welfare agencies also are planning for and, in most instances, are providing some services to enable the needy aging to remain in their own homes as long as their health permits. For example, efforts are being made to provide various home-care services, such as homemaker services for older people living alone. Some local public welfare agencies also provide the aging and their relatives with counseling services directed toward helping them with problems of social adjustment and intra-family relationships. In some instances, where appropriate, referral is made to voluntary family service counseling agencies or other community resources for additional help in working out these and other problems around health, employment, living arrangements, recreation, and housing. In some communities, volunteers provide supplementary services, such as assisting the aging in participating in community recreational and creative activities.

Several States are making substitute family arrangements such as foster home care for those aged who though no longer able to maintain their own homes, do not yet require institutional care; also for those who are well enough to be released from mental hospitals or other institutions but who have no source of support and no families or homes to return to. There has also been increased cooperative planning with institutional facilities in helping older persons return from sheltered care as soon as possible. An example of this is the North Carolina State agency's special unit providing services for the aged; it is preparing some persons for return to normal life outside the institution, and is working through local welfare offices to choose the community placement best suited to the needs and interests of the aged individual. Between 1952 and 1954 about 500 patients were released from State mental hospitals and placed in private living arrangements, with prospects of continuing success in the placement. State mental health programs, too, are beginning to give special attention to the needs of older persons for a range of community services

including alternatives to placement of nonpsychotic patients in State hospitals.

Many public welfare agencies are becoming the focal point for social services for other aged persons in addition to the needy. For example, some State departments of public welfare are providing social services to the non-needy person, and others are providing leadership in organizing State commissions to do broad planning for all older people. There is also increasing public welfare representation on State and local commissions for the aging, community welfare councils and study groups. These place major emphasis on the aging by enlisting citizen participation, developing programs and services needed, and coordinating the activities of public and voluntary agencies. Many citizen boards of State and local public welfare departments are taking increasing interest in community planning for the aging, and are interpreting the needs of the group to State legislators and to others in the community.

ADVANCING EFFICIENT ADMINISTRATION OF PUBLIC ASSISTANCE PROGRAMS

Regional and departmental staffs have been working together in advancing more efficient and effective administration of public assistance programs at Federal, State, and local levels. Much of this is done through providing technical assistance and consultation on request to the States, through continuing review of State and local administration and special study of various aspects of the program, and by assisting States in strengthening the administrative understructure of their public assistance programs.

For example, the Bureau provided consultation to 9 States on various aspects of the aid to the permanently and totally disabled program, to 11 States on specific phases of medical care, to 7 States on need and standards of assistance, and to several additional States in other areas such as welfare services, incapacity, disability, and legislative planning. Consultation was also provided to 14 States on various aspects of staff development and training, such as the planning for long-term staff development in anticipation of the 1956 amendments to the Social Security Act relating to public assistance, the initiation of Statewide staff development plans, and the strengthening of the skills of the field representative and other supervisory positions. The increasing recognition by States of the significance of staff training in improving the quality of services to public assistance recipients was reflected in more requests for consultation in this area than could be met because of limitations on staff time. Numerous requests were also received for participation of Bureau consultants in national and State social welfare conferences and other types of professional meetings.

In addition to the help given to States with specific problems in program areas, much of which is revealed through the continuing review of State and local administration and study of specific program areas, a variety of steps were also taken to assist States in the study and control of the cost and efficiency of their administration. For example, at the request of State agencies, the Bureau conducted surveys in 10 States designed to provide a basis for improving organization, streamlining procedures, and using staff and administrative expenditures more efficiently. Following the conference on administrative management of large urban agencies, held in Washington in June 1955, attention was given to problems arising in large local offices, such as State direction and supervision of large local agencies and the proper size of caseloads and workloads. Work is being done also on the analysis of administrative costs of public assistance, including the costs of certain broad functions in State and local agencies.

Developmental work is continuing on the application of principles of statistical quality-quantity control in public assistance administration. During the year, materials developed cooperatively by the Bureau and the State of Maine were presented at several regional meetings and at the national round-table meeting of the American Public Welfare Association. In addition, with case recording constituting a major and time-consuming function of local agency visitor staff, a Bureau committee is developing criteria and principles to guide States in more efficient and effective performance in this area.

Pertinent experience of some State and local agencies in specific areas of staff development and administrative and fiscal management was made available for the use of other States through publication of certain of their materials. Among the reports processed for distribution were Washington's material describing methods developed for induction and training of social service supervisors; Missouri's experience in identifying staff training needs as the basis for Statewide planning for group meetings as a part of the on-going training program; California's guide for analyzing a staff training program within the day-by-day function of the agency; and the experience of Louisiana, Missouri, Pennsylvania, and Washington in establishing caseload standards in local offices. The Bureau also issued a kit containing materials on the preparation of manuals and other written instructions for staff use.

Work also continued in other areas in developing solutions to new complexities or in identifying constructive approaches to some older problems. For example, a "new look" was taken at some of the component elements of Federal-State relations, including the State plan, and the administrative review of State and local public assistance administration. Consideration was given to the program development role of the Bureau, including the establishment of a research

development committee to provide a continuing mechanism for consideration and evaluation of proposals for research in relation to the development and appraisal of program policies. Effort was made to devise methods for reducing Bureau work in assuring that Federal requirements for plan and practice are being met. A program of manpower utilization audits was initiated to aid in assuring that the Bureau's activities are being administered as efficiently and economically as possible, and plans were made for the General Accounting Office to begin a comprehensive audit of Bureau operations. Many of the recommendations growing out of earlier consideration of questions raised about Federal requirements and the streamlining of operations resulting from the decentralization of certain functions to the regional offices were implemented in whole or in part. In an effort to further improve Bureau administration, a series of study sessions was held with an expert in this area.

Several ad hoc committees of State and regional staff and other persons met with the Bureau during the year to advise on specific subject areas, for example, with a selected group of State people to discuss ways of dealing with the problems that arise in making money payments to aged persons who have difficulty in managing their affairs, and securing qualified and interested guardians where this appears necessary; with the national family service agency in a series of meetings to discuss common interests in the development of social welfare services for public assistance recipients; with selected physicians and State agency staff to consider the medical and social needs of the disabled, especially the group termed "completely helpless" under the State's program; and with State public welfare staff and representatives of voluntary agencies to consider proposals for changes in public assistance legislation.

Bureau staff have also been working with the Council on Social Work Education on the planning of curriculum in public social services; on the development of knowledges, skills, and attitudes needed by those administering the public assistance programs; on the development of teaching materials and criteria for teaching grants and traineeships; and on devising ways of strengthening recruitment to the field of social work. Similarly, medical social workers and assistance standards specialists in the Bureau have been working with the American Public Welfare Association on provisions for medical care services and adequate housing for the needy.

In addition, the first meeting of the regional public assistance technicians was held in Washington in January to consider needed changes in technical materials for use in the administrative review and the development of materials on case recording. Also, the first national meeting since the late thirties of State research and statistics personnel was held in March to discuss the functions of research and statistics

units in State public assistance agencies. An interim committee was established with representation from each region to plan future meetings. The first meeting of State welfare department consultants on standards of assistance was also held in July; these are home economists who work on the formulation and pricing of items, such as food, clothing, fuel, and utilities, which make up the standard by which need is determined.

Other publications issued during the year include: a preliminary release of data obtained from the recent study of support given by absent fathers to children receiving aid to dependent children; a trend report consisting of a graphic presentation of data reflecting the impact on the assistance programs of social, economic, and legislative factors during varying periods in the past 20 years (a similar chart book will be issued in October of each year); a pamphlet describing the public assistance programs and explaining in general terms the responsibilities of the Federal agency and State governments under the public assistance titles of the Social Security Act; and a reissue of the earlier publications on the characteristics of State public assistance plans, and the characteristics of staff development provisions in State public assistance plans.

DEFENSE WELFARE SERVICES

In advancing the delegated defense welfare programs of emergency financial assistance and emergency clothing, the Bureau pursued the objective of preparedness for a civil defense emergency built into the Nation's established public welfare organization—Federal, State, and local. Thus, the experience and skill in helping people, in administration, and in organization of community resources, which have developed in public welfare programs, can be made immediately available and effective in a time of national emergency.

To clarify the broad, general terms of the welfare delegations, a memorandum of understanding was signed by the Secretary of Health, Education, and Welfare and the Administrator of Federal Civil Defense, specifying the nature and scope of the delegated program, the extent of authority delegated, and the basic operating and fiscal principles applicable to the two programs. "Emergency financial assistance" is defined as assistance in cash or in kind, including essential services, and "emergency clothing" as distribution in kind. The Federal responsibility in providing emergency financial assistance and clothing will be met with 100 percent Federal funds. Delegated responsibilities will be discharged through established State agencies administering public assistance.

In March 1956, an "Interim Statement on Emergency Financial Assistance and Emergency Clothing" was issued to State public assistance agencies. This material is being incorporated into a manual for

Federal, State, and local use in planning, organizing, and developing the programs, in test exercises and training activities, and in civil defense emergencies. Negotiations have been in process to formalize through written agreements the relationship between State agencies and the Social Security Administration in the planning, organization, and operation of the delegated welfare programs. Florida was the first State to take formal action to enter into such an agreement, and Connecticut and Montana next. By the end of June, 16 States had signed agreements; by August the total had risen to 27. These agreements have the concurrence of the State civil defense directors and, in some instances, of State governors.

The interest and participation of various groups and organizations have been maintained in a number of ways. A regional meeting was held in Dallas in June with representatives of State welfare departments and of Federal and State civil defense organizations. National private welfare agencies have been consulted regarding their part in the programs, and plans are under way to establish an advisory committee in that area. Two meetings were held with clothing industry representatives and clothing specialists in other Government departments and private organizations to consider the most efficient and effective means of meeting clothing needs in a civil defense emergency. State and local public welfare administrators and defense welfare staff in 22 States met in June to take stock of developments to date and to advise the Bureau regarding the future course of defense welfare planning.

A substantial amount of instructional material was prepared for Operation Alert, including a formula for estimating clothing resources. This formula was supplied to FCDA for application in the Milwaukee survival project. A field test of the formula has been arranged for fiscal 1957.

The delegated responsibilities are being integrated into the total Bureau operation through use, as needed, of Bureau technical and administrative resources, through participation of staff from all divisions in Operation Alert, and through increased responsibility of the Defense Welfare Services unit in planning for continuity of regular assistance programs in a civil defense emergency.

Children's Bureau

Under the Act of Congress of 1912 which created it, the Children's Bureau is charged to investigate and report "upon all matters pertaining to the welfare of children and child life among all classes of our people." Under Title V of the Social Security Act of 1935, as amended, the Children's Bureau is delegated the additional responsi-

bility of assisting States in extending and improving their services for promoting the health and welfare of children, especially in rural areas and in areas of special need, through the administration of grants to State agencies.

Throughout its 44 years the Children's Bureau has been concerned with improving the conditions of life for sick and well children. Its efforts in this direction were continued during 1956 through its own studies and reports, and through the technical consultation it provides, on request, to public and private agencies and organizations serving children.

Some Facts and Figures About Child Life

The estimated number of live births in 1955 approached 4.1 million, reaching a new all-time high. The birth rate, 24.9 per 1,000 total population, is close to the highest in the last 30 years.

The U. S. child population under 18 years increased from 47 million in 1950 to about 56 million in 1955, an 18-percent rise. Between 1955 and 1965, the number of children under 18 years is expected to rise by 21 percent to a total of 67 million in 1965. In this period, the 10 to 17 year olds will increase by about 48 percent, as the large number of children born in the late 1940's and early 1950's enter this age group. In 1952, 42 percent of the children under 18 in the United States were living in rural areas.

The infant mortality rate for 1955 was 26.5 per 1,000 live births, the lowest so far recorded. Many of the States continue to show marked deviations from the national average.

About 310,000 infants were prematurely born in 1955. Fifty-nine percent of neonatal deaths and 43 percent of infant deaths in 1954 were reported as associated with prematurity. In 1954, almost 4 percent of reported pregnancies which reached 20 weeks or more of gestation resulted in a still-born infant or death in the neonatal period.

The maternal mortality rate in 1955 was the lowest ever recorded, 4.8 maternal deaths per 10,000 live births. Maternal mortality has declined without interruption since 1929 when the rate was 69.5 per 10,000. In 1954, over 139,000 births occurred among mothers who were delivered without a physician in attendance. Nineteen percent of births to mothers in the nonwhite group and 7 percent of births to mothers resident outside of metropolitan counties had no medical attendant at delivery.

In 1954 accidents took the lives of 16,189 children in the age group 1 to 19 years and accounted for 38.6 percent of the mortality of this age group. Mortality due to accidents was highest in the age group 15 to 19 years, with 49.9 fatal accidents per 100,000 children. Cancer

has become the leading cause of death due to disease among children 5 to 19 years of age (6.7 deaths per 100,000 children 5 to 14 years; 7.6 per 100,000 children 15 to 19 years). Next in importance among all fatal diseases are those of the heart and acute rheumatic fever among children 15 to 19 years (5.1 per 100,000); congenital malformations in children 5 to 14 years (2.7 per 100,000); and influenza and pneumonia in the preschool group (16.1 per 100,000).

Large families continue to carry a disproportionate share of the responsibility for rearing the Nation's children. Families with 3 or more children under 18 years of age constituted only 18 percent of all families but they had 54 percent of the country's children. Families with 4 or more children constituted only 8 percent of all families but they had 29 percent of the country's children.

Families with large numbers of children have lower than average incomes. As compared with the national average family income of \$4,173 in 1954, families with 4 children had an average income of \$3,949; families with 5 children, \$3,155; and families with 6 or more children, \$3,252.

In 1954 about 2.7 million children under 18 years, or 1 in 20 of the Nation's children, had lost one or both parents by death. This represents a sharp drop from the number of orphans in the country in 1920 when there were 6.5 million orphaned children, or 1 in 6 children, in the population. The decline in the number of full orphans has been particularly striking, from 750,000 in 1920 to about 60,000 in 1954.

An estimated 176,600 children were born out of wedlock during 1954 (62,700 white; 113,900 nonwhite). This number was about 10 percent more than the estimated 160,800 children born out of wedlock during 1953. There were 71,100 unmarried mothers under 20 years of age, 40 percent of the total number. In 1954, of every 1,000 unmarried women between 15 and 44 years, 18.3 gave birth to a child out of wedlock. This rate was more than double that of the 1940 rate of 7.1 per 1,000 unmarried women.

The 1.5 million marriages in 1955 represented a 3 percent increase over 1954. Preliminary figures indicate that divorces were 1.6 percent lower in 1955 than the 379,000 divorces in 1954. About one-third of a million children have their families broken by divorce each year.

In 1955, 6½ million mothers with children under 18 years were in the labor force. This represented more than one out of every 4 mothers in the population; in 1940 one out of 10 mothers was in the labor force.

Police arrest data reported by the FBI in its Uniform Crime Reports for 1,162 cities show that the arrests of juveniles (under 18) increased 11.4 percent in 1955 over 1954. In 1955, juveniles represented 62.2 percent of all persons arrested for auto theft; 52.7 percent for burglaries; 46.9 percent for larcenies. Data for 1955 indicate a

9-percent increase in juvenile delinquency court cases over 1954—the seventh consecutive year of increase. The overall increase since 1948, when the rise first began, was 70 percent, while the overall increase in the child population, aged 10 through 17, was only 16 percent over that same period of time. In 1955, roughly one-half million children or about 2½ percent are estimated to have been involved in court delinquency cases out of a total of about 20 million children in this age group.

Children With Special Needs

The problem of certain groups of children call for special attention. Among these are the adolescent in conflict with society, the children of migratory workers, mentally retarded children, and children in unprotected adoptions.

The Nation as a whole is concerned about juvenile delinquency because of its tragic consequences for the individual young person, its contagion among youth, and its social and economic costs for the community. The Children's Bureau is giving particular attention to the problems of delinquent children through the coordinated programs of the Division of Juvenile Delinquency Service and the Divisions of Social and Health Services and the activities of the Division of Research.

For the country as a whole, it has been estimated that there are at least 320,000 children of migrant agricultural workers. The Children's Bureau, working with the Office of Education, the Public Health Service and the Bureau of Public Assistance, continued to carry out a pilot project along the East Coast to assist the 10 States in the East Coast migrant stream to do interstate planning for services to migrants so that each State can more easily perform its share of the total job. In the health programs it has been possible to make special grants for demonstration projects. Florida, with such a grant, provided a qualified observer to move with a group of families up the East Coast migrant stream, and during the year developed plans for a service project in the area where a great many migrant families live. Colorado will start its third year of a special project which now includes 3 counties, and Idaho has a joint project with Oregon for a group of migrants in a very rural area.

The exact number of mentally retarded children is not known but it is estimated that about 1 person in 100 is mentally defective and that about 750,000 children of school age are of low intelligence. As the birth rate goes up the number of such children increases. At the same time the growing complexity of our society makes their social and vocational adjustment ever more difficult. Parents, doctors, nurses, educators, and social workers are increasingly concerned

about the health and welfare of these children. The Children's Bureau is placing special emphasis upon health, child welfare, and research programs related to mentally retarded children.

For many years the Children's Bureau has worked with the States in their efforts to improve services to unmarried mothers and services for the placement of children, including adoptive placement. Because of the seriousness of the situation in unprotected adoptions the Bureau is seeking advice from legal, medical, social work, and other professional groups, from adoptive parents and law enforcement agencies. Conferences with professional groups were begun in 1955 and the work was more fully developed in 1956.

Federal Interdepartmental Committee on Children and Youth

The Congress places responsibility upon a number of the agencies of the U. S. Government for programs which contribute in varying degrees to the social well-being of children and youth. In 1948 the President requested these agencies to form an Interdepartmental Committee on Children and Youth to assist each other in keeping informed about program developments, to work together for greater effectiveness in program planning, and to strengthen working relationships between the Federal Government and the States. This triple assignment has been carried out during fiscal 1956 by the regular monthly meetings of the full Committee, the work of its subcommittees, and an informational exchange with the State and Territorial Committees on Children and Youth. Thirty-two Federal agencies are represented on the Committee which meets monthly from September to June. The Children's Bureau furnishes the secretariat for the Interdepartmental Committee on Children and Youth.

The Interdepartmental Committee was a cosponsor of the Joint Conference on Children and Youth held in Washington, D. C., in December 1955 at which 200 representatives of State, national voluntary, and Federal agencies participated. The theme of the conference was "A Look Ahead for Children and Youth."

In February, 1956, the Interdepartmental Committee, together with the Josiah Macy, Jr. Foundation, held a 3-day conference at Princeton, N. J., to discuss new directions in community planning for mentally retarded children.

Programs of the Bureau

RESEARCH IN CHILD LIFE

The Bureau's small research staff is helping to carry out the legislative mandate "to investigate and report upon all matters pertain-

ing to the welfare of children." Program research on disadvantaged children is being emphasized for the time being. In addition to its own studies and those conducted jointly with others, the Bureau has sought to stimulate research in child life by other agencies, by formulating the questions requiring study and developing research methods, and has assisted agencies engaged in such research.

Study subjects in technical research included development of a method for determining unit costs in child placement, and in institutional care of children; methods and findings of evaluative research as exemplified by studies of psychotherapy, delinquency prevention and treatment programs and school health services. Two cooperative field studies were launched to examine respectively the outcome of independent adoptions and the reasons why the natural mother may choose to place her child on her own, rather than through a social agency. Work continued on assembling information about programs and services for mentally retarded children. Improvement in hospital statistics about maternity and newborn infant care was stressed in the development of a joint research study of the American College of Obstetricians and Gynecologists, the American Academy of Pediatrics and the Children's Bureau on "Uses of Statistics on Maternity and Newborn Infant Services in Hospitals."

Throughout the country juvenile delinquency was being studied from both psychological and sociological perspectives—the former focusing primarily on the inner personality dynamics of individual children, the latter directing attention to the effects of situational or environmental social and cultural factors. In an attempt to bridge the gap between these two approaches, the Bureau held a conference of experts from both fields, and is planning additional conferences. A report of this first conference for use by research workers has been prepared.

Bureau staff aided officials of Senate health departments with the installation of a new report on maternal and child health services. Reports from State welfare agencies now provide an undisputed count of the number of children receiving public child welfare case-work services annually. Data were collected during 1956 about the use of educational leave in the public child welfare programs and about the professional training of State and local child welfare staff. A reporting system to provide more accurate national statistics on juvenile court cases has been established, and one has been developed to provide annual data from public training schools for delinquents.

During the year annual reports from the State crippled children's agencies were used as the basis for a series of tables showing trends in the programs since 1948.

As part of its research interpretation activities, the Bureau sent to press a completely rewritten edition of *Your Child From One to Six*.

A last supplement of *Research Relating to Children* was issued in accordance with the original plan of coverage and a first issue under a new plan was prepared for publication. This series is an inventory of current research to help investigators in the field of child life keep informed about studies being conducted in their areas of special interest.

The research staff provided technical consultation requested by State health departments on studies in areas such as evaluation of child health conferences, health records for migrants, maternal and infant mortality, pregnancy, hospital care of premature infants, use of vital records, and fetal and neonatal wastage. State welfare departments and voluntary organizations were assisted in studies on such problems as unit costs in child placement, independent adoptions of children, delinquency prevention, child-rearing practices, training school staff development, institutional care, research needs, and program evaluation.

MATERNAL AND CHILD HEALTH SERVICES

All of the States, the District of Columbia, Alaska, Hawaii, Puerto Rico, and the Virgin Islands receive Federal funds to extend and improve services for promoting the health of mothers and children.

The ongoing programs of the State maternal and child health agencies continue to make a major contribution to the health of the Nation. Preliminary figures from State maternal and child health reports show that about 200,000 expectant mothers received health supervision at prenatal clinics in 1955. Public health nurses served some 250,000 mothers before delivery and about 300,000 in the period after delivery. The number of mothers served did not vary greatly from the previous year.

Nearly half a million infants and close to 600,000 preschool children received health supervision through well-child clinics. In addition, health department programs provided nursing service for almost 700,000 infants and about the same number of preschool children, in both instances somewhat less than in 1954.

Almost 2,000,000 children were vaccinated for smallpox and a slightly larger number were immunized for diphtheria by State and local health departments through grants provided by the maternal and child health programs.

The following publications relating to maternal and child health were prepared or issued during the year: *The Child Who Is Mentally Retarded*; *Services for Crippled Children*; and *Diagnoses of Children in Crippled Children's Programs*.

To better prepare personnel for maternal and child health programs a number of States carried out institutes and special training projects. A postgraduate conference on hospital care of the new-

born infants, sponsored by the University of Colorado School of Medicine and the Mid-Western Hospital Association, and planned especially for hospital personnel, was held in Denver in the early summer of 1956. The conference dealt with all aspects of medical, nursing and administrative practices related to the improved care of newborn infants.

The Harvard School of Public Health and the Massachusetts Department of Public Health conducted an institute on the growth and development of children for nurses concerned with the care of handicapped children. A selected group of nurses from faculties of universities, schools of nursing, hospitals and State crippled children agencies was invited to attend 2 weeks of lectures, seminars, and related field work. Plans were made for developing more comprehensive and effective staff education programs in the different regions of the country, and during the year such regional meetings were held at the University of Pittsburgh, at Vanderbilt University, and in Wyoming.

Because of the increased interest in the care of the mentally retarded child, workshops on community programs for these children were conducted in Washington State, Denver, and Los Angeles. These workshops involved professional personnel in health and welfare departments as well as personnel in other community agencies that contribute to the care of the mentally retarded child.

During the year a conference of medical social personnel in all of the four medical social work education projects supported by maternal and child health and crippled children's funds was held. This meeting was planned in response to requests from the medical social workers, deans of schools of social work, and State agencies involved in the projects who wished to consider together mutually interesting problems and to plan for the future. This conference resulted in recommendations that the Children's Bureau give leadership in collecting and analyzing material to be supplied by the participants in order to determine what public health content should be taught in schools of social work and what methods might best be used.

The conference on nutrition called by the Governor of New Jersey during the spring of 1956 dealt with problems relating to the nutrition of specific age groups and the role of various institutions in the community in solving these problems.

A multidiscipline workshop on consultation in Puerto Rico was the culmination of over a year of joint planning efforts. The Assistant Professor of Nursing Education of Teachers College, Columbia University, and the Chief of the Nursing Section of the Children's Bureau, Division of Health Services, participated. Sixty-six professional health workers in Puerto Rico attended the workshop, and

among the participants were physicians, nurses, medical social workers, health educators, nutritionists, and personnel representatives.

The University of Michigan and the University of Minnesota Schools of Public Health expanded their maternal and child health divisions to enable them to give more specialized training in maternal and child health as well as to strengthen the maternal and child health aspects of the generalized public health training in these schools.

A renewed interest in the prevention not only of perinatal deaths but of damaged infants has developed, and a number of States, including Georgia, Kansas, and North Carolina, are carrying on perinatal mortality studies.

As an indication of continued interest in the care of the premature infant, the Illinois Legislature appropriated \$390,000 for last fiscal year for the care of premature infants. As a result of this appropriation additional centers for the care of premature infants have been established in the State. Additional centers for care of premature infants and training of physicians and nurses were established during the year in Indiana, New York, and Ohio. The Premature Institute Program conducted by the Cornell-New York Medical Center continues to prove a popular and needed training opportunity for both physicians and nurses.

There is an increasing awareness of the emotional aspects of hospitalization of young children, and in a number of hospitals in the country more liberal arrangements have been made for parents to visit their children, for mothers to share in the care of their children with the nurses, and for the earlier discharge of children from the hospital.

A survey of school health services in New York City is being conducted under the aegis of the New York City Health and Welfare Council in cooperation with the Department of Education, the Department of Health, and the parochial school systems. Workshops on the health problems of the school-age child were held in Kansas, Minnesota, and Missouri during the year.

Helping translate research findings into improved practices for the benefit of mothers and children is an important function of the maternal and child health services. States have been active in measures designed to prevent retrolental fibroplasia, especially since January 1955, when a cooperative study by 18 hospitals showed that a major cause of retrolental fibroplasia was the exposure of premature infants to too high a concentration of oxygen. What States can accomplish is illustrated by the experience in New York, where in 1949 retrolental fibroplasia was the leading cause of blindness in children under five. Between 1953 and 1955, there was a 94-percent decrease in blindness from retrolental fibroplasia; in 1955 only 3 cases of

blindness from this cause were reported from New York State and New York City.

An area of expanded activity in maternal and child health services includes provisions for Indian children. During the year State maternal and child health programs developed a number of cooperative relationships with the Indian Health Service.

CRIPPLED CHILDREN'S SERVICES

All of the 53 States and Territories, with the exception of Arizona, are participating in the crippled children's program. Though the State agency auspices vary, the objective is uniform, namely: to locate children who require care, and to provide the means of physical restoration through diagnosis, medical and surgical treatment, and alleviation of unfavorable social and psychological influences which adversely affect the degree and duration of the disability.

Preliminary figures from State reports indicate that a new peak was reached in 1955 in the number of handicapped children served under Federally aided programs. Some 278,000 children were cared for during the year. Most of the children (221,000) were seen in clinics; about 53,000 received physician's services through home or office visits. Children who were hospitalized numbered approximately 48,000. Convalescent-home care was given to the smallest group, around 3,800.

The Congress increased the appropriation for crippled children's services to the full authorization of \$15 million during this fiscal year. This has enabled the State agencies not only to provide care for more children with diagnostic conditions already included in the program but to include more kinds of handicapping conditions and to experiment with new types of services. Following the increase in the appropriation for crippled children's services, the Children's Bureau conducted a series of regional meetings to discuss a wide range of handicapping conditions that might be included in the program and to give the States an opportunity to exchange program ideas.

During the year Colorado, Pennsylvania, and West Virginia initiated services for the epileptic child. The Massachusetts Health Department and the Harvard Medical School presented a 1-day institute on epilepsy which focused attention on the integration of medical, social, economic, and emotional components in the patient's situation and which clarified some of the community aspects of the care of children with epilepsy.

Several States, including Connecticut, Mississippi, North Carolina, and Tennessee, expanded their crippled children's programs to include care of children with heart disease. A new regional congenital heart center was established at the University of Minnesota to provide

care for children which is not provided in any of the other regional heart centers in the country.

The Alabama crippled children's program, in cooperation with the Alabama Dental School, is developing a special project to find out better methods to obtain overall care of children with cleft palate deformities who live in rural areas, and Maryland expanded its existing integrated Cleft Palate Clinic at Johns Hopkins to include a cooperative arrangement with the Baltimore College of Dental Surgery and the University of Maryland Dental School for the provision of dental services for children accepted under the program.

Services for children with disorders of the brain and neurological system are being brought together in a special project at the newly established Rehabilitation Center in the Children's Hospital, Buffalo. It is expected that the center will serve portions of Western Pennsylvania and Eastern Ohio, as well as the Western New York area.

Many State crippled children's agencies during the past year have increased their services to the child amputee. In some States the agencies maintain evaluation and training centers; in others this service is purchased from evaluation and training centers established by other organizations and hospitals. The Michigan Child Amputee Center in Grand Rapids has expanded its staff and is now able to offer its services to children in other States. Michigan is also able to train a limited number of physicians, occupational and physical therapists and prosthetists.

Children's Bureau specialists have been in frequent consultation with staff of the Office of Vocational Rehabilitation during the year in relation to the expanded program of that agency for older children and for adults. Joint work has resulted in criteria for the developing of rehabilitation centers for adults and children.

CHILD WELFARE SERVICES

In its child welfare services the Bureau consultants work with State public and voluntary welfare agencies in planning and operating their child welfare programs and with the Bureau of Public Assistance, other Federal agencies, and national organizations in planning for better services to children. The Bureau administers the Federal grant-in-aid funds for child welfare services. It also develops guides, recommendations for practice, and informational materials in relation to the child welfare program as a whole and for specialized services, such as social services to children in their own homes, protective services, homemaker services, services to unmarried mothers, foster family and group care programs, and adoption services.

In working with State public welfare agencies in the development of the child welfare programs, one of the major concerns of the Children's Bureau is the provision of appropriate social services for

all children in need of them in all geographical areas. Particular attention has been given to the stimulation of new types of services for special groups of children, such as mentally retarded children, emotionally disturbed children, and children in need of protection from neglect or abuse.

States are facing the problems of how to achieve geographic coverage and maintain quality of service in the face of both shortage of personnel and shortage of funds. This involves examining staffing patterns, personnel practices and coordination of services. It necessitates also stepping up programs for the training of child welfare personnel.

States are seeking new ways for staff development programs. Connecticut, Vermont, Indiana, and Ohio have added full-time staff development supervisors or consultants. Michigan, Utah, and Wyoming have been using staff committees in planning staff development activities. In Connecticut a joint plan developed by the school of social work, the State Department of Social Welfare, the Personnel Board, and a voluntary agency has made possible a work-study plan which would lead to full professional training of workers providing direct services to children.

Personnel continued to loom large as a purpose for which Federal funds were used, including salaries, in-service training, and professional education. States were thus able to extend and strengthen their services in some of the special areas of child welfare, such as services to unmarried mothers, adoption, homemaker services, services to children in their own homes, and licensing of institutions, agencies, and foster family homes.

Increased emphasis throughout the country in providing services to children in their own homes is evidenced by the fact that most of the regional conferences of the American Public Welfare Association and the conferences of the Child Welfare League gave special attention to services to children in their own homes. State conferences of social work have also included specific sessions on this subject. An overwhelming number of requests from State agencies for consultation have been received by the Bureau. Visits to States have highlighted the desire of local staff to be helpful to children and parents, and also the need for increased knowledge and skill and the almost complete lack of adequate local supervision to provide skilled service in this area.

Agencies all over the country are expressing concern about the ways and means of providing services for the protection of neglected and abused children. The American Humane Association has reactivated regular meetings of representatives of national agencies concerned with protective services. Serious gaps in this type of

service are found throughout the country. The need to develop special skills for this service has been of paramount interest.

More interest is also being expressed in the development of homemaker services which would preserve a family unit at times of crisis. To assist the Bureau in planning with the States in the expansion of homemaker service programs a group of people interested in this service met in Washington June 11 and 12, 1956, at the invitation of the Bureau. The group, which included representatives of welfare and health agencies—national, State and local, voluntary and public—recommended that a conference, planned on a broad basis to include homemaker service to families with children, the aged, and the chronically ill, be held in the spring of 1957 under the combined auspices of the Children's Bureau, the Bureau of Public Assistance, and the Public Health Service.

The Division of Social Services has given special emphasis this year to the development of new and improved services to unmarried mothers. A new permanent position, Consultant on Services to Unmarried Mothers and Unprotected Adoptions, was established and filled in December 1955. This consultant has been working closely with health services and research staff on problems related to the provision of medical care and social services for unmarried mothers. All State public welfare agencies in their State and local child welfare programs carry some responsibility for services to unmarried mothers and for adoptions. Twelve States budgeted Federal child welfare services funds to help provide care not otherwise available for unmarried mothers, such as the purchase of maternity home care and provision of foster family or group care. State and local progress in providing services to unmarried mothers has been slow due to limited funds, the lack of staff, and in some instances residence requirements.

Adoptions and adoption practices of agencies continue to be very much in the limelight in social work conferences, community planning, press, TV, radio, and other mass media and in State legislatures. Many State legislatures passed social welfare legislation, especially adoption legislation. In Alabama legislation was passed which extended the inheritance right of adopted children. In Florida an amendment to the Adoption Act was passed which provided that the preliminary hearing and the interlocutory degree of adoption be eliminated and that there be only one hearing which would not be held until the child had lived in the home of the adoptive parents under the supervision of an authorized child welfare agency for at least 3 months. Several acts passed in Georgia strengthened and clarified the adoption laws and prohibit certain bad adoption practice which existed in the past, some of which received publicity during the black market hearings in Miami held by the Senate Subcommittee on Juvenile Delinquency.

Almost 5,000 copies of the publication, *Protecting Children in Adoption*, reporting on the Conference on Unprotected Adoptions, called by the Children's Bureau in June 1955, have reached national organizations, public and private agencies, schools of social work, and interested individuals.

More public agencies have been developing adoption services and those which already have adoption programs are examining their current practices. Many agencies are reviewing practice in regard to foster care placements to determine whether they can make decisions earlier than they now do as to whether a child can be returned to his own home or whether permanent placement through adoption should be arranged. Agencies are concerned about termination of parental rights and are asking the Children's Bureau for help in this area. Agencies all over the country are beginning to put more effort into the placement in adoption of children who were formerly grouped among the "hard-to-place" children. Through foundation funds a project called MARCH has been established in San Francisco for the recruitment of adoptive homes for children of minority groups. One of the most significant developments in relation to adoption services is the reorganization of the Edna Gladney Home in Fort Worth, Tex., an institution that became famous through the moving picture, "Blossoms in the Dust." The program of the Home has been reorganized and a professionally equipped director of social services has been employed. All adoption placements are now made by professional social workers and social services are to be provided the unmarried mothers. The Gladney Auxiliary initiated a unique workshop for parents of adopted children on general child development and parent-child relationships. The major workshop focus was on constructive acceptance of adoption on the part of the parents, the child, relatives, and friends.

Recognition of the value of the services of foster boarding parents has been shown in various ways. Sometimes State welfare departments have increased boarding rates to include a fee for service. In Connecticut the Governor proclaimed May 27 as foster parents' day, and foster parents who had given service for 10 years received special certificates.

Many boards of traditional institutions for dependent children, fully aware of the decreasing demand for residential care for these children are under increasing pressure to serve other groups of children, including those who are retarded, delinquent, and emotionally disturbed.

Publications in the field of child welfare services that were produced or prepared in 1956 include: *Protecting Children in Adoption*; *Interviewing for Staff Selection in Public Welfare*; *Leadership through Consultation*; *Survey Methods for Determining the Need*

for Services to Children of Working Mothers; Personnel in Public Child Welfare Programs; Children Receiving Casework Services.

JUVENILE DELINQUENCY SERVICES

Juvenile delinquency in the United States has been on the upturn steadily for the past 7 years, and percentagewise it is rising far faster than our juvenile population. The Children's Bureau is giving consultant service to States and communities in relation to juvenile courts, probation institutions, police work, personnel training, and community services for the prevention and treatment of juvenile delinquency.

A steady increase is noted in the number of agencies and communities developing new programs to reach and serve predelinquent youth and delinquent youth in groups. This whole area of work has expanded rapidly without much formulated concurrence as to the theory and practice which can serve as guidelines, or as bases for evaluation. To begin to meet the pressing requests of planners, administrators, and practitioners in the area, the Bureau has collected reports on operating projects serving predelinquent youth in gang groups. These are being studied to distill out common concepts, principles, and standards. The common elements and program problems which emerge will be carefully considered with national youth serving agencies.

Although several States have operated forestry camps as treatment facilities for the control and treatment of delinquency for a number of years, eight more States either established such camps in the last year or are now establishing them.

During the past year several police departments have organized special divisions or bureaus to work with juveniles. Five new associations of State and local juvenile officers' associations have been organized either on a regional or Statewide basis. In addition, two local associations were formed.

Increased interest has been shown in the States in reviewing the legal aspects of juvenile court work and in developing a compatible interweaving of legal and social work principles in the court's operation. Recent State legislation revising juvenile court statutes reflects many of the principles outlined in the Bureau's publication, *Standards for Specialized Courts Dealing with Children*.

A widespread desire exists to build more and better research controls into programs aimed at juvenile delinquency prevention. Many States and communities have inquired about the specific programs, projects, and techniques which have proved effective for delinquency prevention. Others are asking for help in designing appropriate research for their programs and for guidance in carrying it out.

A paramount problem, as expressed by the field, is the lack of trained staff for delinquency programs. In partial response to this

need, the Bureau has been placing great emphasis on training. In May 1956 the Bureau's chief consultant on training in juvenile delinquency was appointed. This consultant is chairman of a standing committee on corrections of the Council of Social Work Education. At the request of schools of social work, the Consultant has advised with the instructional staff of 13 schools which were reviewing their offerings in the correctional field, or which are launching a correctional emphasis in the education of social work students.

A summer session project in correctional social work, planned for social work teachers, was offered by the University of California School of Social Welfare, at Berkeley, cosponsored by the Council of Social Work Education, the National Probation and Parole Association, and the Children's Bureau. Two foundations contributed funds—the Rosenberg Foundation of San Francisco and the Doris Duke Foundation—and one anonymous donor. Twenty-four experienced faculty members and practitioners were selected from the 138 individuals nominated throughout the country to attend the 6-week project.

Evidence of the great interest of the police in training to work with juveniles is the fact that the Consultant on Police Services participated in 13 training institutes during the year. These institutes varied in length from a day to a week and were sponsored primarily by educational institutions, although several were sponsored by operating agencies or professional organizations. At the request of the Bureau of Indian Affairs, 4 Indian agencies were visited in New Mexico and Arizona to provide consultation to personnel working with juveniles on the reservation. A 2-day institute was sponsored by the Bureau of Indian Affairs for tribal law enforcement officials at Santa Fe.

The Division Director attended the First United Nations Congress on the Prevention of Crime and the Treatment of Offenders, Geneva, Switzerland, August 22–September 3, 1955, and served as chairman of the United States delegation for the section on juvenile delinquency.

The following publications relating to the field of delinquency were published during the year: *Health Services and Juvenile Delinquency*; *Juvenile Court Statistics, 1954*; *Public Training Schools for Delinquent Children, a Directory*; *Studies in Juvenile Delinquency—A Selected Bibliography*. *New Perspectives for Research on Juvenile Delinquency* is in press.

INTERNATIONAL COOPERATION

The cooperative program with the International Cooperation Administration is continuing with a moderate increase in persons sent to this country for training by that organization and a similar in-

crease in the requests for specialists from other countries. The World Health Organization and the United Nations continue to refer people from other countries to us for observation and academic training.

During the year the Training Branch has planned and arranged training programs for 74 long-term trainees and observers and 156 short-term visitors. (The trainees were in programs 12 months or more, the observers 2 to 6 months, and the short-term visitors a few hours to 2 or 3 weeks.) Of the 74 long-term trainees and observers, 53 were in the health field, as follows: maternal and child health physicians—21, pediatrics—10, obstetrics—2, nursing (pediatric, maternity, and midwifery)—12, other—8; 18 were in the field of child and youth welfare, as follows: child welfare—9, group work—5, juvenile delinquency—4; 3 were in the field of medical social work. Of the 74 trainees and observers, 48 came through the International Cooperation Administration, 17 through the World Health Organization, 8 through the United Nations, and one "on her own." The long-term trainees came from 31 countries, the short-termers from 51.

The child health and welfare specialists recruited and back-stopped by the Bureau are contributing to programs in 6 countries. The pediatric nurse educator in Vellore, India, has served as teacher and consultant at the School of Nursing for 1 year. The medical social work consultant in Panama has assisted with the establishment of the Social Service Department as an integral part of the Santo Tomas Hospital and the creation of a Section of Social Services in the Department of Public Health. The staff in Iraq has continued training Iraqi personnel to eventually take over the program. The obstetric nursing consultant in Guatemala has assisted in the development of the Maternity Unit at the Roosevelt Hospital. The staff in Egypt have been working on the Demonstration and Training Health Center in the village of Shubramant and now the Center is carrying out its major function of the training of Egyptian personnel.

The Chief of the Bureau attended two meetings of the Executive Board of the UN Children's Fund (UNICEF) as U.S. Representative on the Board. She also attended a meeting in Geneva, Switzerland, of the Joint Committee on Health Policy made up of members of the Executive Board of WHO and of the Executive Board of UNICEF.

Federal Credit Unions

As of June 30, 1956, there were 8,108 operating Federal credit unions with aggregate assets of \$1,368 million of which \$946 million was in loans outstanding to 2 million members. These organizations had a combined membership of 4.3 million who owned \$1,239 million in shares for an average of \$288 per member. During the fiscal year,

the number of operating Federal credit unions increased 546 or 7.2 percent; total assets increased \$244.9 million or 21.8 percent; membership increased 465,288 or 12.1 percent; loans outstanding increased \$178.4 million or 23.2 percent; and shares increased \$225 million or 22.2 percent.

At the end of fiscal year 1956, Federal credit unions were operating in each of the 48 States and in the District of Columbia, Hawaii, Alaska, Canal Zone, Puerto Rico, and the Virgin Islands. About 83 percent were serving employee groups in commerce, industry, and government; 15 percent were serving associational groups; and 2 percent were serving residents of small rural communities or well-defined neighborhood groups in urban areas. About two-thirds (64.6 percent) of those operating on June 30 had assets of less than \$100,000, and approximately 60 percent were chartered after January 1, 1948.

Each Federal credit union is a separate corporation. Each is managed and operated by officials elected by and from the group it was organized to serve. The field of membership of each unit is specifically defined in its charter, and the law limits its activities to providing cooperative thrift and short-term consumer loan services for its members. The Federal Credit Union Act specifies the maximum size of the aggregate loans that may be made to a member (\$200 or 10 percent of the credit union's paid-in and unimpaired capital and surplus, whichever is larger); the maximum loan maturity (36 months); and the maximum rate of interest (1 percent per month on the unpaid balances, inclusive of all charges incidental to making the loan). Although each unit is authorized to borrow from any source up to 50 percent of its paid-in and unimpaired capital and surplus, borrowing has not been an important source of capital for most Federal credit unions. Funds used to make loans to members are the accumulated savings of members in their credit union. Such savings are called "shares."

The Bureau of Federal Credit Unions furnishes upon request information concerning the organization and operation of Federal credit unions. Charters are granted to groups that apply when it is found that they are eligible under the provisions of the Federal Credit Union Act. During fiscal year 1956, 747 charters were granted, as compared with 794 in the previous year. The Bureau furnishes manuals and instructional materials to newly chartered groups, and when necessary, provides the services of an examiner to assist with the organization meeting and instructs the new officials.

The Bureau provides supervisory and advisory services for established Federal credit unions and makes supervisory examinations on the average of once every year or 15 months.

The operations of the Bureau are financed by fees paid by Federal credit unions. Fiscal year 1956 was the third year that the Bureau received no appropriation other than fees collected from Federal credit unions.

Research and Development

The growth in numbers and size of Federal credit unions is an important factor in the administration of the Bureau's program responsibilities. Solutions to new problems must be developed and trends must be studied in order that the probable impact of indicated developments can be anticipated and the necessary changes in procedures be readied for installation at the appropriate time.

Manuals and instructional materials furnished to the officials of Federal credit unions are revised from time to time to keep them up to date and pertinent. Advice and suggestions of the operating officials, of the field examiners, and of the leaders of the organized credit union movement are solicited. This method has fostered good cooperation with instructions issued by the Bureau and has been of material assistance in the development of practical aids in credit union operation. This method of proven value is being continued.

An integral part of each examination is the instruction of the Federal credit union officials. Since these instructions can be and are geared to prevailing or anticipated conditions in the credit union concerned, the examination program is a progressive rather than a static influence in the development of sound credit union service in the Nation. The knowledge this experience gives the field examiners is a valuable resource in keeping the Bureau's policies and regulations up to date.

During the fiscal year a supplement to the Accounting Manual for Federal Credit Unions was completed and sent to the printer. The supplement contains instructions and suggestions that are of special interest to credit unions with assets of \$100,000 and above. Preceding the writing of the supplement a considerable amount of research was done among large credit unions to determine their special accounting problems and the procedures some of them had developed to meet these problems.

A complete revision of the Supervisory Committee Manual for Credit Unions was written during the fiscal year. The new manual reflects the results of research into internal auditing procedures now used in commerce, industry, and government. By means of questionnaires sent to the Bureau's field staff, credit union officials, and leaders of the organized credit union movement, suggestions as to organization and content of the new manual were obtained. The first draft was

then distributed to the field staff and to others who had returned the questionnaires for review and comment. The first draft was revised to incorporate as many as possible of the comments and suggestions. As a result of this procedure, considerable interest has been stimulated in improving internal audits for credit unions.

During the fiscal year, manpower utilization surveys were made in two divisions of the Washington office of the Bureau. In the last quarter of the fiscal year, the Chief of Field Operations reviewed the procedures and organization of the Bureau's regional offices. The survey of the regional offices was completed and the findings summarized in time for discussion at the conference of the Regional Representatives and Associate Regional Representatives held in Washington during the last week of June 1956. Surveys and analyses of this type, which are essentially research in the area of management procedures, have a special significance to the Bureau of Federal Credit Unions. The Bureau's program responsibilities are increasing as the number and size of Federal credit unions increase. To maintain quality performance without unduly increasing costs requires continuing attention to operating procedures and management improvement projects. The findings of the surveys made during fiscal year 1956 will be used to effect modifications and improvements during the coming year. Additional surveys will be made when their need is indicated.

The economy of the Nation has changed materially since June 26, 1934, when the Federal Credit Union Act was signed by the President. In this period Federal credit unions have become well established. In order to determine whether the policies of the Bureau have kept pace with changing economic conditions and the growth of Federal credit unions, a comprehensive survey of the basic policies pertaining to chartering, examination, and supervision of Federal credit unions was undertaken during the year. Work on this project will carry over into fiscal year 1957.

The Bureau is continuing efforts to collect and maintain basic statistical data on Federal credit unions and to encourage research in this field by graduate students and faculty members of colleges and universities. The results of these efforts will provide the means for detecting need for changes and for evaluating proposed legislation, proposed amendments to published regulations, and proposed revisions of manuals for Federal credit union officials.

Table 1.—Social Security Administration: Funds available and obligations incurred, fiscal years 1955 and 1956 ¹

[In thousands; data as of June 30, 1956]

Item	Funds Available ²		Obligations Incurred	
	1956	1955	1956	1955
Total	\$1, 608, 038	\$1, 553, 969	\$1, 576, 251	\$1, 538, 730
Grants to States.....	1, 511, 157	1, 468, 000	1, 479, 736	1, 453, 199
Public assistance.....	1, 477, 000	1, 438, 000	1, 446, 116	1, 423, 943
Old-age assistance.....			922, 539	920, 791
Aid to the blind.....			37, 618	36, 467
Aid to dependent children.....			395, 290	385, 233
Aid to the permanently and totally disabled.....			90, 669	81, 452
Maternal and child health and welfare services.....	34, 157	30, 000	33, 620	29, 256
Maternal and child health services.....	11, 928	11, 928	11, 922	11, 919
Services for crippled children.....	15, 000	10, 843	14, 803	10, 614
Child welfare services.....	7, 229	7, 229	6, 895	6, 723
Administrative expenses ³	96, 881	85, 969	96, 515	85, 531
Office of the Commissioner ⁴	323	309	320	304
Bureau of Old-Age and Survivors Insurance ⁵	91, 229	81, 020	91, 046	80, 687
Bureau of Public Assistance.....	1, 636	1, 501	1, 621	1, 484
Children's Bureau ⁶	1, 740	1, 629	1, 731	1, 614
Bureau of Federal Credit Unions.....	1, 953	1, 510	1, 797	1, 442

¹ Funds available and obligations reported by administrative agencies.² Funds made available by regular and supplemental appropriations, authorizations, transfers, allotments, recoveries, and fee collections for services rendered.³ Funds made available and obligations incurred for salaries, printing and binding, communications, traveling expenses, and reimbursement items for services rendered to other Government agencies.⁴ Appropriations by Congress from general revenues accounted for approximately 58 percent of the administrative expenses of the Office of the Commissioner in 1955, and approximately 57 percent of such expenses in 1956; balance from old-age and survivors insurance trust fund.⁵ For administration of the old-age and survivors insurance program, which involved benefit payments of \$4,333,000,000 in 1955 and \$5,361,000,000 in 1956.⁶ Includes expenses for investigating and reporting on matters pertaining to the welfare of children authorized by the act of 1912, as well as expenses for administration of grants to States.**Table 2.—Financing social insurance under the Social Security Act: Contributions collected and trust fund operations, fiscal years 1954–56**

[In millions]

Item	1956	1955	1954
Contributions collected under—			
Federal Insurance Contributions Act ¹	\$6, 442	\$5, 087	\$4, 589
Federal Unemployment Tax Act ²	325	280	285
State unemployment insurance laws ^{3, 4}	1, 329	1, 142	1, 246
Old-age and survivors insurance trust fund:			
Receipts, total.....	6, 937	5, 535	5, 040
Transfers and appropriations ¹	6, 442	5, 087	4, 589
Interest and profits on investments ⁵	495	448	451
Expenditures, total.....	5, 485	4, 436	3, 365
Monthly benefits and lump-sum payments ⁶	5, 361	4, 333	3, 276
Administration.....	124	103	89
Assets, end of year.....	22, 593	21, 141	20, 043
State accounts in the unemployment trust fund:			
Receipts, total.....	1, 520	1, 333	1, 454
Deposits ⁴	1, 333	1, 146	1, 246
Interest.....	187	187	209
Withdrawal for benefit payments.....	1, 287	1, 760	1, 605
Assets, end of year.....	⁷ 8, 216	7, 983	8, 409

¹ Contributions on earnings up to and including \$3,600 a year in 1954 and \$4,200 a year beginning Jan. 1, 1955. Contribution rate paid by employers and employees: 2 percent each. Contribution rate paid by self-employed: 3 percent. Includes deposits by States under voluntary agreements for coverage of State and local employees. Includes deductions to adjust for reimbursement to the General Treasury of the estimated amount of taxes subject to refund on wages in excess of wage base.² Tax paid only by employers of 8 or more. Employers offset against this tax—up to 90 percent of the amount assessed—contributions which they have paid under State unemployment insurance laws or full amount they would have paid if they had not been allowed reduced contribution rates under State experience-rating provisions. Rate is 3 percent of first \$3,000 a year of wages paid to each employee by subject employer; because of credit offset, effective rate is 0.3 percent of such wages.³ Contributions plus penalties and interest collected from employers and contributions from employees, reported by State agencies.⁴ Contributions and deposits by States usually differ slightly, primarily because of time lag in making deposits.⁵ Includes interest transferred from the railroad retirement account under the financial interchange provision of the Railroad Retirement Act, as amended in 1951.⁶ Represents checks issued.⁷ Preliminary.Source: Compiled from *Monthly Statement of the U. S. Treasury*, other Treasury reports, and State agency reports.

Table 3.—Old-age and survivors insurance: Estimated number of families and beneficiaries receiving benefits and average monthly benefit in current-payment status, by family group, end of June 1956 and 1955

[In thousands, except for average benefit; data corrected to Nov. 8, 1956]

Family classification of beneficiaries	June 30, 1956			June 30, 1955		
	Number of families	Number of beneficiaries	Average monthly amount per family	Number of families	Number of beneficiaries	Average monthly amount per family
Total.....	6,160.2	8,374.5	-----	5,539.7	7,563.5	-----
Retired worker families.....	4,731.9	6,114.4	-----	4,214.8	5,462.3	-----
Worker only.....	3,460.3	3,460.3	\$60.00	3,067.7	3,067.7	\$58.10
Male.....	2,148.4	2,148.4	65.60	1,962.3	1,962.3	63.50
Female.....	1,311.8	1,311.8	50.70	1,105.4	1,105.4	48.40
Worker and wife aged 65 or over.....	1,182.6	2,365.2	104.80	1,066.4	2,132.8	102.20
Worker and wife under age 65 ¹.....	.3	.6	113.30	.4	.8	102.50
Worker and aged dependent husband.....	10.7	21.4	88.20	9.2	18.5	87.00
Worker and 1 or more children.....	16.6	42.7	101.00	15.8	41.1	98.10
Worker, wife aged 65 or over, and 1 or more children.....	1.3	4.0	132.30	1.2	3.6	123.30
Worker, wife under age 65, and 1 or more children.....	60.1	220.1	121.10	54.0	197.7	117.00
Survivor families.....	1,428.3	2,260.1	-----	1,324.9	2,101.2	-----
Aged widow.....	746.3	746.3	49.00	688.3	688.3	46.60
Aged dependent widower.....	1.1	1.1	48.20	1.2	1.2	40.00
Widowed mother only ¹.....	.8	.8	51.20	1.4	1.4	48.60
Widowed mother and 1 child.....	128.4	256.8	108.50	120.8	241.6	105.10
Widowed mother and 2 children.....	85.7	257.2	137.80	83.6	250.7	132.60
Widowed mother and 3 or more children.....	82.4	389.8	136.40	75.6	356.1	129.90
Divorced wife and 1 or more children.....	.3	.7	135.70	.2	.6	130.00
1 child only.....	217.0	217.0	48.50	200.3	200.3	47.80
2 children.....	90.0	179.9	83.80	80.9	161.9	81.60
3 children.....	31.8	95.3	105.20	29.1	87.2	101.00
4 or more children.....	20.2	89.3	112.20	19.6	86.3	105.60
1 aged dependent parent.....	22.8	22.8	50.50	22.2	22.2	48.10
2 aged dependent parents.....	1.5	2.9	95.30	1.7	3.3	92.90

¹ Benefits of children were being withheld.

Table 4.—Old-age and survivors insurance: Selected data on benefits, employers, workers, and taxable earnings, by State, for specified periods, 1953, 1955, and 1956

[In thousands, except for average taxable earnings; data corrected to Nov. 9, 1956]

State	Monthly benefits in current-payment status, end of fiscal year 1956 ¹		Benefit payments, fiscal year 1956 ¹			Em- ployers report- ing tax- able wages, July- Sep- tember 1955 ²	Calendar year 1953		
	Num- ber	Amount	Total	Monthly benefits	Lump- sum pay- ments		Work- ers with taxable earn- ings ³	Amount of taxable earnings ⁴	
								Total	Aver- age pe r worker
Total.....	8,374.5	\$439,424	\$5,360,813	\$5,245,473	\$115,340	3,910	61,000	\$136,000,000	\$2,230
Alabama.....	121.2	5,080	62,374	60,869	1,505	57	820	1,501,000	1,830
Alaska.....	4.3	201	2,449	2,382	67	3	60	148,000	2,470
Arizona.....	39.3	1,952	23,868	23,369	499	20	270	570,000	2,110
Arkansas.....	75.2	3,139	38,225	37,550	675	31	410	662,000	1,610
California.....	676.0	36,469	444,523	435,233	9,290	321	4,820	11,487,000	2,380
Colorado.....	70.1	3,560	43,347	42,510	837	40	510	1,044,000	2,050
Connecticut.....	142.0	8,437	102,715	100,579	2,136	63	1,040	2,648,000	2,550
Delaware.....	19.3	1,040	12,759	12,418	341	12	180	420,000	2,330
Dist. of Col.....	31.5	1,627	19,883	19,424	459	30	430	941,000	2,190
Florida.....	228.0	11,966	145,216	142,805	2,411	100	1,130	1,949,000	1,720
Georgia.....	125.5	5,269	64,880	63,149	1,731	80	1,120	1,951,000	1,740
Hawaii.....	18.6	879	10,830	10,622	208	10	170	362,000	2,130
Idaho.....	28.1	1,356	16,562	16,207	355	14	180	345,000	1,920
Illinois.....	502.2	28,163	344,085	336,024	8,061	234	4,090	9,928,000	2,430
Indiana.....	240.2	12,596	153,585	150,360	3,225	91	1,700	3,823,000	2,250
Iowa.....	131.5	6,542	79,572	78,058	1,614	70	770	1,573,000	2,040
Kansas.....	94.8	4,649	56,576	55,498	1,078	49	670	1,407,000	2,100
Kentucky.....	134.6	6,058	74,137	72,496	1,641	50	760	1,520,000	2,000
Louisiana.....	97.0	4,276	52,459	51,208	1,251	59	820	1,568,000	1,910
Maine.....	68.7	3,421	41,593	40,821	772	25	350	640,000	1,830
Maryland.....	116.6	6,075	74,545	72,565	1,980	66	950	2,075,000	2,180
Massachusetts.....	346.5	19,691	239,512	234,769	4,743	121	2,110	4,792,000	2,270
Michigan.....	358.7	20,321	248,130	242,620	5,510	140	3,010	7,755,000	2,580
Minnesota.....	151.3	7,877	95,751	94,013	1,738	74	1,020	2,181,000	2,140
Mississippi.....	63.1	2,475	30,363	29,654	709	33	470	722,000	1,540
Missouri.....	218.3	11,212	136,602	133,774	2,828	99	1,580	3,416,000	2,160
Montana.....	29.6	1,487	18,202	17,767	435	16	200	402,000	2,010
Nebraska.....	61.0	2,989	36,377	35,671	706	33	430	830,000	1,930
Nevada.....	8.6	455	5,584	5,444	140	7	80	184,000	2,300
New Hampshire.....	42.0	2,205	26,834	26,296	538	16	220	430,000	1,950
New Jersey.....	321.3	18,648	227,812	222,417	5,395	143	2,190	5,373,000	2,450
New Mexico.....	22.6	947	11,621	11,358	262	16	200	376,000	1,880
New York.....	938.2	52,839	644,577	630,154	14,423	493	7,360	17,607,000	2,390
North Carolina.....	139.6	5,918	72,712	70,931	1,781	81	1,290	2,262,000	1,750
North Dakota.....	16.9	758	9,209	9,056	153	13	130	226,000	1,740
Ohio.....	487.6	27,109	330,621	323,497	7,124	193	3,700	9,151,000	2,470
Oklahoma.....	93.1	4,317	52,768	51,620	1,148	47	670	1,334,000	1,990
Oregon.....	105.5	5,624	68,450	67,103	1,347	45	620	1,425,000	2,300
Pennsylvania.....	672.3	37,438	456,577	446,773	9,804	247	4,560	10,950,000	2,400
Puerto Rico.....	33.4	1,001	11,446	11,247	199	17	340	259,000	760
Rhode Island.....	58.1	3,241	39,424	38,638	786	20	360	787,000	2,190
South Carolina.....	71.8	2,923	36,011	35,080	931	42	650	1,150,000	1,770
South Dakota.....	24.3	1,144	13,899	13,658	241	16	170	312,000	1,840
Tennessee.....	125.0	5,407	66,334	64,737	1,597	66	990	1,826,000	1,840
Texas.....	288.3	13,195	161,826	157,953	3,873	211	2,840	5,597,000	1,970
Utah.....	31.6	1,594	19,434	19,067	367	15	260	557,000	2,140
Vermont.....	24.0	1,207	14,662	14,397	265	11	130	249,000	1,920
Virgin Islands.....	0.4	14	165	160	5	(⁵)	10	6,000	600
Virginia.....	141.3	6,510	79,902	77,891	2,011	76	1,150	2,202,000	1,910
Washington.....	154.0	8,321	101,337	99,270	2,067	62	870	2,012,000	2,310
West Virginia.....	112.1	5,404	65,867	64,700	1,167	35	560	1,231,000	2,200
Wisconsin.....	204.3	11,023	134,077	131,525	2,552	89	1,320	3,081,000	2,330
Wyoming.....	11.9	608	7,405	7,267	138	8	110	224,000	2,040
Foreign ⁶	52.9	2,767	33,139	32,819	320	-----	60	187,000	3,120
Maritime ⁷	-----	-----	-----	-----	-----	-----	100	340,000	3,400

¹ State of residence estimated.

² State data represent number of employers reporting taxable wages by the State of their reporting headquarters. An employer is a legal entity such as a corporation, partnership, or single ownership, for which a single tax return is filed. Excludes agricultural employers.

³ Preliminary estimate. Workers are shown in the State of major job—that is, the State in which the greatest amount of taxable wages or self-employment net earnings was received.

⁴ Preliminary estimate. Total annual taxable earnings are shown in the worker's State of major job. Averages are rounded to nearest \$10.

⁵ Fewer than 500 employers.

⁶ Benefit data relate to persons in foreign countries receiving old-age and survivors insurance benefits. Employment and earnings data relate to citizens of the United States employed by American employers.

⁷ Relates to employment of officers and crews of American vessels.

Table 5.—Old-age and survivors insurance: Selected data on benefits, employers, workers, and taxable earnings for specified periods, 1954–56

[In thousands, except for average monthly benefit and average taxable earnings; corrected to Nov. 9, 1956]

Item	1956	1955	1954
	Fiscal year		
Benefits in current-payment status (end of period):			
Number.....	8,374.5	7,563.5	6,468.8
Old-age.....	4,731.9	4,214.8	3,519.4
Wife's or husband's.....	1,255.0	1,131.3	959.1
Child's.....	1,316.7	1,220.9	1,111.9
Widow's or widower's.....	747.8	689.8	586.3
Mother's.....	297.3	281.2	267.7
Parent's.....	25.7	25.6	24.4
Total monthly amount.....	\$439,424	\$384,025	\$278,702
Old-age.....	\$296,976	\$257,230	\$182,334
Wife's or husband's.....	\$41,968	\$37,011	\$26,302
Child's.....	\$48,662	\$43,730	\$34,770
Widow's or widower's.....	\$36,648	\$32,150	\$24,016
Mother's.....	\$13,876	\$12,677	\$10,249
Parent's.....	\$1,293	\$1,226	\$1,030
Average monthly amount:			
Old-age.....	\$62.76	\$61.03	\$51.81
Wife's or husband's.....	\$33.44	\$32.72	\$27.42
Child's.....	\$36.96	\$35.82	\$31.27
Widow's or widower's.....	\$49.01	\$46.61	\$40.96
Mother's.....	\$46.67	\$45.08	\$38.28
Parent's.....	\$50.31	\$47.86	\$42.26
Benefit payments during period:			
Monthly benefits.....	\$5,245,473	\$4,232,609	\$3,185,282
Old-age.....	\$3,532,910	\$2,802,967	\$2,068,404
Supplementary.....	\$531,831	\$428,847	\$318,614
Survivor.....	\$1,180,732	\$1,000,795	\$798,264
Lump-sum payments.....	\$115,340	\$100,539	\$90,175
Estimated number of living workers with wage credits (mid-point of period—Jan. 1): ¹			
Total.....	99,800	95,200	93,600
Fully insured.....	70,100	70,300	71,000
Currently but not fully insured.....	1,200	600	(²)
Uninsured.....	28,600	24,300	22,500
Estimated number of employers reporting taxable wages, 1st quarter of fiscal year.....	³ 3,910	3,715	3,654
	Calendar year		
Estimated number of workers with taxable earnings.....	(⁴)	66,000	59,700
Estimated amount of taxable earnings.....	(⁴)	\$159,000,000	\$134,000,000
Average taxable earnings ⁵	(⁴)	\$2,410	\$2,240

¹ Estimates of insured workers have not been adjusted to reflect changes in insurance status arising from (1) provisions that coordinate the old-age and survivors insurance and railroad retirement programs and (2) wage credits for military service. Estimates are only partially adjusted to eliminate duplicate count of persons with taxable earnings reported on more than 1 account number. The effect of such duplication is substantially less significant for insured workers than for uninsured workers.

² Not possible under the 1950 amendments until July 1, 1954.

³ Excludes agricultural employers.

⁴ Not available.

⁵ Rounded to nearest \$10.

Table 6.—Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1956, and total payments to recipients, by program and State, fiscal year 1956

[Includes vendor payments for medical care and cases receiving only such payments]

[Corrected to Oct. 16, 1956]

State	Old-age assistance			Aid to dependent children					Aid to the blind			Aid to the permanently and totally disabled			
	Number of recipients, June	Payments to recipients		Number of recipients, June			Payments to recipients			Num-ber of recipients, June	Payments to recipients		Num-ber of recipients, June	Payments to recipients	
		Average payment, June	Total, fiscal year (in thou- sand)	Fam- ilies	Total 1	Children	Average payment per family, June	Average payment per recipient, June	Total, fiscal year (in thou- sand)		Average payment, June	Total, fiscal year (in thou- sand)			
Fiscal year:															
1954.....	2,582,403	\$51.45	1,589,618	581,895	2,079,469	1,566,743	\$85.08	\$23.81	561,111	\$55.80	211,741	\$53.51	125,976		
1955.....	2,548,503	52.30	1,589,811	620,303	2,239,328	1,691,613	86.78	24.04	620,561	57.41	69,322	54.93	147,095		
1956.....	2,523,716	54.29	1,633,533	613,720	2,250,229	1,707,629	89.27	24.35	639,476	60.42	258,279	56.72	165,183		
Alabama.....	100,236	32.55	36,781	19,630	76,004	58,453	41.15	10.64	9,556	33.59	11,752	34.51	4,581		
Alaska.....	1,667	98.67	1,277	1,393	4,847	3,580	91.55	26.31	1,500	72.11	59	---	---		
Arizona.....	14,058	55.68	9,355	4,798	18,578	14,090	95.43	24.65	5,193	64.76	585	---	---		
Arkansas.....	55,127	33.11	21,595	8,431	32,119	24,969	56.35	14.79	4,938	39.63	5,728	31.70	1,934		
California.....	267,320	71.44	226,917	52,257	180,305	138,829	125.54	36.39	79,201	88.66	13,551	---	---		
Colorado.....	52,628	81.95	55,708	5,805	22,129	17,073	109.37	28.69	7,568	66.90	5,080	58.24	3,453		
Connecticut.....	16,405	90.18	17,620	5,365	17,363	12,914	136.85	42.29	8,770	99.06	2,133	118.42	2,902		
Delaware.....	1,573	44.79	830	1,202	4,645	3,558	84.56	21.88	1,158	64.12	163	55.48	209		
District of Columbia.....	3,058	53.85	1,970	2,128	9,114	7,117	109.76	25.63	2,722	60.99	2,308	62.74	1,655		
Florida.....	69,001	46.99	38,631	21,426	76,288	58,404	55.07	13.47	13,995	49.25	3,025	47.86	583		
Georgia.....	98,100	38.34	44,745	14,339	52,335	39,988	75.27	20.62	13,011	43.41	1,767	42.33	5,562		
Hawaii.....	1,635	47.24	990	3,073	11,732	9,345	83.00	21.74	3,449	57.61	1,313	59.98	963		
Idaho.....	8,367	55.53	5,639	1,735	6,211	4,556	129.16	36.08	2,751	61.61	137	62.25	646		
Illinois.....	90,831	60.88	67,371	25,065	97,923	74,177	136.54	34.95	36,239	67.53	9,477	86.02	6,730		
Indiana.....	34,325	51.56	21,307	8,690	30,719	22,840	91.93	26.00	9,444	63.35	1,315	---	---		
Iowa.....	39,613	60.99	28,580	6,826	24,702	18,421	111.77	30.89	8,548	74.59	1,281	---	---		
Kansas.....	33,345	67.19	26,754	4,578	16,716	12,900	112.14	30.71	6,099	73.50	3,842	70.84	3,049		
Kentucky.....	55,499	35.56	23,409	18,736	63,633	48,505	63.83	17.63	14,314	36.99	1,355	---	---		
Louisiana.....	121,339	54.63	76,718	19,839	77,946	59,555	73.25	18.64	15,964	51.64	14,034	45.89	7,146		
Maine.....	11,847	50.04	7,332	4,487	15,588	11,284	84.22	24.24	4,489	53.98	629	58.39	296		

Maryland	10,204	46.52	5,676	6,251	25,527	19,841	96.85	23.72	7,172	470	53.36	300	5,075	55.49	3,190
Massachusetts	85,525	82.17	83,301	12,706	42,386	31,419	132.66	39.77	19,824	1,869	103.27	2,165	10,693	184.84	12,838
Michigan	51,006	47.81	48,830	18,969	66,127	48,407	116.02	33.26	25,861	1,783	86.03	1,360	2,540	75.21	2,108
Minnesota	50,871	70.81	42,919	8,067	27,374	21,050	126.06	37.15	11,720	1,198	86.03	1,148	1,282	70.15	996
Mississippi	70,865	28.80	42,919	8,067	27,374	33,568	27.69	7.48	3,765	3,820	38.81	1,599	3,764	24.59	8,368
Missouri	129,248	49.79	78,022	20,383	72,904	54,406	70.30	19.66	16,838	3,988	60.00	3,165	13,367	52.13	3,338
Montana	8,537	58.18	6,132	1,970	7,003	5,338	107.05	30.11	2,539	4,425	65.62	3,165	1,449	65.14	1,105
Nebraska	17,416	52.79	10,927	2,725	10,046	7,548	99.06	26.87	3,055	818	65.41	599	1,988	55.72	3,355
Nevada	2,587	61.74	1,822	473	1,633	1,237	88.68	25.69	337	118	74.41	105	276	76.84	239
New Hampshire	5,907	62.33	4,492	995	3,722	2,807	136.80	36.57	1,580	261	67.33	211	758	86.67	3,568
New Jersey	19,664	74.08	16,587	6,508	21,719	16,432	121.91	36.53	8,954	916	71.55	758	3,941	86.67	3,568
New Mexico	9,025	49.46	4,969	6,075	22,632	17,285	85.13	22.85	5,549	391	48.26	206	1,681	48.26	8,232
New York	95,982	83.10	96,219	53,938	198,667	147,551	139.56	37.89	90,496	4,375	91.39	4,696	40,060	86.11	41,496
North Carolina	51,750	32.71	19,726	19,954	76,963	58,993	62.95	16.32	14,412	4,932	41.27	2,378	13,094	38.53	5,532
North Dakota	8,066	71.73	6,751	1,637	5,904	4,601	122.76	33.53	2,218	113	57.50	84	8,274	80.96	860
Ohio	98,210	59.45	69,412	17,176	65,527	49,805	89.53	23.47	17,936	3,758	57.92	2,585	8,274	50.40	4,843
Oklahoma	94,969	64.30	71,856	15,710	52,757	40,221	81.94	24.40	14,884	1,982	78.08	1,832	6,524	58.52	4,387
Oregon	18,571	65.54	14,683	3,545	12,758	9,659	122.86	34.14	4,934	336	74.88	296	3,305	75.65	2,911
Pennsylvania	52,678	46.48	30,300	28,866	110,787	84,028	107.10	27.89	37,986	16,708	61.61	10,551	12,766	55.02	8,537
Puerto Rico	43,633	7.93	4,148	42,163	149,526	114,738	10.44	2.94	5,210	1,674	7.85	151	20,143	8.62	2,015
Rhode Island	7,910	62.91	5,982	3,467	11,982	8,841	114.46	33.12	4,670	163	71.28	145	1,568	76.39	1,402
South Carolina	42,400	32.74	16,588	8,118	31,303	24,431	47.40	12.29	4,558	1,790	37.96	800	7,854	31.79	3,005
South Dakota	10,273	43.05	3,656	2,769	9,357	7,058	84.14	25.08	2,701	138	44.91	106	789	46.86	856
Tennessee	61,115	34.07	26,137	19,600	70,691	52,841	62.21	17.25	14,509	3,134	40.02	1,564	2,271	38.98	856
Texas	222,993	41.77	110,025	21,328	87,577	65,320	64.90	15.05	15,884	6,569	45.58	3,508	2,271	38.98	856
Utah	9,243	60.69	6,762	2,887	10,105	7,489	113.01	32.29	3,945	239	67.62	190	1,797	65.53	1,410
Utah	9,243	60.69	6,762	2,887	10,105	7,489	113.01	32.29	3,945	239	67.62	190	1,797	65.53	1,410
Vermont	6,682	49.53	3,695	1,096	3,789	2,837	80.06	23.16	1,030	137	48.90	87	531	50.38	248
Virgin Islands	6,682	49.53	3,695	1,096	3,789	2,837	80.06	23.16	1,030	137	48.90	87	531	50.38	248
Virginia	16,569	18.54	154	222	822	678	35.51	9.59	91	30	(9)	8	101	19.47	24
Washington	16,569	31.13	6,245	8,960	35,045	27,179	67.31	17.91	7,067	1,305	37.73	579	4,981	39.80	2,267
Washington	56,832	82.37	54,996	9,032	31,135	22,940	120.21	34.87	12,789	787	91.39	849	5,390	98.29	6,099
West Virginia	23,077	28.45	7,743	17,804	67,417	52,311	78.62	20.76	15,616	1,179	32.44	445	8,495	31.57	3,154
Wisconsin	41,400	66.95	32,517	8,097	28,651	21,185	144.96	40.97	12,864	1,112	73.92	935	1,210	101.76	1,356
Wyoming	3,887	58.85	2,779	584	2,099	1,608	111.60	31.05	771	65	64.46	51	474	60.44	335

1 Includes as recipients the children and 1 parent or other adult relative in families in which the requirements of at least 1 such adult were considered in determining the amount of assistance.

2 Average payment not computed on base of less than 50 recipients.

Table 7.—Special types of public assistance under plans approved by the Social Security Administration: Federal grants to States and total expenditures and percent from Federal funds, by program and State, fiscal year 1956

[Includes vendor payments for medical care; amounts in thousands; data corrected to Oct. 31, 1956]

State	Federal grants to States ¹				Expenditures for assistance and administration					
	Total	Old-age assistance	Aid to dependent children	Aid to the blind and totally disabled	Old-age assistance		Aid to dependent children		Aid to the blind	
					Amount	Percent from Federal funds	Amount	Percent from Federal funds	Amount	Percent from Federal funds
Fiscal year:										
1954.....	\$1,386,931	\$831,711	\$347,236	\$35,561	\$1,684,409	56.0	\$619,237	57.2	\$72,123	49.6
1955.....	1,423,907	920,791	385,233	36,467	1,686,237	55.4	683,932	56.6	74,938	49.1
1956.....	1,446,116	922,539	395,291	37,618	1,735,438	54.0	708,782	56.0	79,032	47.8
Alabama.....	40,213	28,279	7,976	503	39,295	70.9	10,146	78.1	694	71.2
Alaska.....	1,694	1,684	34	34	1,368	50.7	1,590	61.6	65	49.9
Arizona.....	9,667	5,631	3,709	327	9,625	58.2	5,423	67.5	605	53.7
Arkansas.....	22,948	16,367	4,365	692	23,421	71.6	5,214	78.4	993	67.9
California.....	161,223	112,892	42,673	5,658	241,004	46.8	91,715	46.6	14,696	38.9
Colorado.....	27,335	20,499	4,619	133	57,228	35.9	8,279	53.3	288	47.7
Connecticut.....	11,898	6,920	3,796	151	18,872	38.4	9,332	41.2	309	36.7
Delaware.....	1,624	651	833	96	1,807	64.5	1,247	68.2	100	31.7
District of Columbia.....	4,113	1,221	1,838	107	2,164	57.0	3,089	59.2	196	54.7
Florida.....	39,050	25,577	11,721	1,120	40,200	63.6	15,236	70.7	1,702	64.5
Georgia.....	47,384	32,428	9,686	1,239	47,122	68.7	13,811	70.5	1,867	66.4
Hawaii.....	3,691	3,642	2,473	47	1,030	58.4	3,883	60.4	84	53.0
Idaho.....	5,046	3,178	1,427	78	5,900	53.8	2,968	46.6	160	52.1
Illinois.....	59,231	36,495	18,272	1,501	79,555	52.1	39,098	43.3	3,122	48.0
Indiana.....	19,092	12,077	6,267	748	23,138	51.9	10,427	61.8	1,499	45.4
Iowa.....	20,719	15,330	4,777	618	20,358	53.0	9,217	52.3	1,378	49.3
Kansas.....	18,734	13,625	3,379	266	23,388	48.4	6,591	51.1	577	45.9
Kentucky.....	29,352	17,060	11,316	976	24,544	70.1	15,325	73.8	1,421	69.3
Louisiana.....	67,658	49,196	12,700	780	51,203	60.7	17,813	71.6	1,353	57.3
Maine.....	8,376	4,764	3,183	217	7,723	62.4	4,756	66.0	338	61.6
Maryland.....	10,753	3,667	4,961	185	6,121	60.3	7,946	62.4	319	57.9
Massachusetts.....	50,220	34,917	9,678	778	88,780	40.7	21,990	43.9	2,269	34.9
Michigan.....	42,920	27,688	13,514	710	32,691	54.1	27,486	50.0	1,405	51.2
Minnesota.....	26,203	18,436	5,790	517	45,337	44.9	12,700	45.4	1,234	41.9
Mississippi.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Missouri.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Montana.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Nebraska.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Nevada.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
New Hampshire.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
New Jersey.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
New Mexico.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
New York.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
North Carolina.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
North Dakota.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Ohio.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Oklahoma.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Oregon.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Rhode Island.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
South Carolina.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
South Dakota.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Tennessee.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Texas.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Utah.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Vermont.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Virginia.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Washington.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
West Virginia.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Wisconsin.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0
Wyoming.....	1,405	1,405	1,405	1,405	1,405	100.0	1,405	100.0	1,405	100.0

Mississippi.....	24,653	19,319	3,316	1,170	848	25,615	74.8	4,422	75.5	1,692	69.8	1,178	75.3
Missouri.....	72,593	52,215	13,081	1,696	5,601	81,058	64.5	18,106	71.6	3,455	49.0	8,899	63.5
Montana.....	5,703	3,411	1,489	1,930	613	6,574	54.1	2,792	53.4	53.4	50.5	1,251	50.5
Nebraska.....	9,377	6,815	1,971	3,339	252	11,804	59.5	3,306	60.6	644	52.1	1,451	56.8
Nevada.....	1,422	1,101	265	55	124	1,977	55.9	411	63.2	118	45.7	278	43.9
New Hampshire.....	3,305	2,265	806	111	124	4,814	49.9	1,730	46.5	228	48.0	278	43.9
New Jersey.....	14,592	7,906	4,672	421	1,593	18,678	45.1	9,806	46.4	886	47.3	3,987	40.5
New Mexico.....	7,941	3,250	3,943	138	610	5,514	65.3	6,088	70.2	226	65.5	937	64.4
New York.....	108,901	40,682	47,399	2,065	18,754	108,804	40.4	106,858	45.3	5,491	38.5	49,000	39.5
North Carolina.....	32,714	14,981	11,858	1,803	4,072	20,856	72.1	15,611	75.5	2,685	66.2	5,981	68.3
North Dakota.....	4,818	3,237	1,160	46	375	7,231	45.4	2,387	49.3	95	50.4	930	40.7
Ohio.....	55,186	37,932	12,290	1,581	3,382	73,401	53.9	19,884	63.5	2,905	55.7	5,521	63.0
Oklahoma.....	11,396	37,994	9,956	853	2,592	73,895	51.9	15,736	64.6	1,898	44.9	4,754	54.4
Oregon.....	11,805	7,442	2,807	134	1,423	15,783	48.0	5,584	48.8	315	44.8	3,169	44.0
Pennsylvania.....	50,366	19,159	22,668	3,422	5,116	33,791	59.9	41,800	55.6	11,171	31.9	10,018	51.5
Puerto Rico.....	4,250	1,496	1,960	54	740	4,568	33.2	5,959	31.8	181	32.9	2,418	32.3
Rhode Island.....	6,292	3,052	2,496	72	672	6,282	48.8	4,951	49.7	155	45.5	1,493	44.4
South Carolina.....	19,680	12,722	3,938	595	2,426	17,595	71.7	4,992	77.4	856	68.5	3,301	71.5
South Dakota.....	6,111	3,848	1,877	76	310	6,109	65.5	2,941	64.4	118	65.3	475	64.2
Tennessee.....	32,890	19,598	11,544	1,114	634	27,697	70.1	15,442	74.9	1,646	67.2	944	67.2
Texas.....	92,191	77,159	12,593	2,439	754	113,832	67.6	16,684	77.3	3,654	66.1	944	67.2
Utah.....	6,633	3,666	2,114	99	754	7,092	53.5	4,258	59.7	199	50.4	1,482	50.7
Vermont.....	3,577	2,555	764	69	198	3,885	65.5	1,134	67.7	92	64.2	332	63.8
Virgin Islands.....	158	90	40	4	15	193	46.1	132	43.8	29	45.7	29	46.4
Virginia.....	12,599	4,832	5,685	431	1,581	7,002	69.7	7,837	73.6	658	65.9	2,578	63.7
Washington.....	33,215	23,730	6,827	337	2,320	57,394	42.1	13,915	48.3	899	37.9	6,425	37.4
West Virginia.....	20,451	6,088	11,570	337	2,456	8,139	75.4	16,090	71.8	467	71.8	3,376	72.3
Wisconsin.....	21,927	15,247	5,783	463	433	34,976	45.7	13,835	41.7	1,014	45.6	1,448	34.4
Wyoming.....	2,298	1,614	459	28	196	2,978	54.4	858	52.5	55	52.3	360	54.5

¹ Based on checks issued (excluding any amounts paid during the fiscal year for a prior or subsequent year); may differ slightly from fiscal year expenditures from Federal funds reported by States.

² Less than 50 percent because half of total expenditures exceeded the statutory limitation on the aggregate amount of Federal funds for all programs that can be made available for a fiscal year under legislation in effect during fiscal year 1956.

Table 8.—Maternal and child health and welfare services: Grants to States for maternal and child health services, services for crippled children, and child welfare services under the Social Security Act, by program and State, fiscal year 1956¹

[In thousands]

State	Maternal and child health services	Crippled children's services	Child welfare services
United States.....	\$11,921.3	\$14,804.0	\$6,897.3
Alabama.....	426.1	518.1	218.1
Alaska.....	84.4	169.7	39.4
Arizona.....	85.9	.....	66.3
Arkansas.....	201.3	309.9	160.8
California.....	607.9	622.1	239.7
Colorado.....	209.7	148.2	76.2
Connecticut.....	144.8	211.6	68.4
Delaware.....	85.5	93.2	40.9
District of Columbia.....	150.6	252.0	28.9
Florida.....	286.5	392.5	141.2
Georgia.....	360.1	554.5	225.1
Hawaii.....	141.6	162.6	33.0
Idaho.....	92.6	150.7	29.3
Illinois.....	309.7	458.4	194.7
Indiana.....	233.6	151.5	98.7
Iowa.....	177.1	291.2	150.7
Kansas.....	136.3	177.5	110.9
Kentucky.....	291.4	494.1	221.3
Louisiana.....	300.0	372.4	173.1
Maine.....	87.6	114.7	69.3
Maryland.....	328.8	308.7	100.8
Massachusetts.....	350.8	212.4	80.0
Michigan.....	331.4	461.7	225.1
Minnesota.....	223.9	265.3	163.3
Mississippi.....	307.7	327.1	202.0
Missouri.....	255.4	410.6	170.8
Montana.....	84.2	131.0	64.0
Nebraska.....	99.2	130.6	51.2
Nevada.....	73.2	86.9	23.7
New Hampshire.....	65.2	28.2	47.9
New Jersey.....	157.4	213.8	81.1
New Mexico.....	123.5	122.5	71.6
New York.....	453.8	444.9	217.5
North Carolina.....	547.8	557.1	319.0
North Dakota.....	85.1	106.2	61.8
Ohio.....	374.9	463.2	260.5
Oklahoma.....	156.1	322.0	135.0
Oregon.....	105.9	139.2	51.0
Pennsylvania.....	482.4	561.6	294.3
Puerto Rico.....	308.0	451.6	204.3
Rhode Island.....	84.9	126.7	39.1
South Carolina.....	259.7	390.3	185.2
South Dakota.....	86.1	106.3	70.6
Tennessee.....	379.8	424.6	217.6
Texas.....	543.7	701.5	332.6
Utah.....	128.0	197.6	58.5
Vermont.....	77.0	97.6	51.1
Virgin Islands.....	68.1	87.1	30.0
Virginia.....	321.2	395.7	214.0
Washington.....	182.8	215.3	112.6
West Virginia.....	185.5	287.7	163.9
Wisconsin.....	201.5	312.7	170.2
Wyoming.....	75.6	71.4	41.0

¹ Based on checks issued less refunds.

Table 9.—Federal credit unions: Number of members, amount of assets, amount of shares, and amount of loans outstanding, Dec. 31, 1935–55

Year	Number of reporting credit unions ¹	Number of members	Amount of assets	Amount of shares	Amount of loans
1935	762	118,665	\$2,368,521	\$2,224,608	\$1,930,489
1936	1,725	307,651	9,142,943	8,496,526	7,330,248
1937	2,296	482,441	19,249,738	17,636,414	15,683,676
1938	2,753	631,436	29,621,501	26,869,367	23,824,703
1939	3,172	849,806	47,796,278	43,314,433	37,663,782
1940	3,739	1,126,222	72,500,539	65,780,063	55,801,026
1941	4,144	1,396,696	105,656,839	96,816,948	69,249,487
1942	4,070	1,347,519	119,232,893	109,498,801	42,886,750
1943	3,859	1,302,363	126,948,085	116,988,974	35,228,153
1944	3,795	1,303,801	144,266,156	133,586,147	34,403,467
1945	3,757	1,216,625	153,103,120	140,613,962	35,155,414
1946	3,761	1,302,132	173,166,459	159,718,040	56,800,937
1947	3,845	1,445,915	210,375,571	192,410,043	91,372,197
1948	4,058	1,628,339	258,411,736	235,008,368	137,642,327
1949	4,495	1,819,606	316,362,504	285,000,934	186,218,022
1950	4,984	2,126,823	405,834,976	361,924,778	263,735,838
1951	5,398	2,463,898	504,714,580	457,402,124	299,755,775
1952	5,925	2,853,241	662,408,869	597,374,117	415,062,315
1953	6,578	3,255,422	854,232,007	767,571,092	573,973,529
1954	7,227	3,598,790	1,033,179,042	931,407,456	681,970,336
1955	7,806	4,032,220	1,267,427,045	1,135,164,876	863,042,049

¹ In the period 1945 through 1955, the number of operating and reporting credit unions was the same. In other years, the number of credit unions which reported was less than the number in operation.

Table 10.—Federal credit unions: Assets and liabilities, Dec. 31, 1955, and Dec. 31, 1954

Assets and liabilities	Amount			Percentage distribution	
	Dec. 31, 1955	Dec. 31, 1954	Change during year	Dec. 31, 1955	Dec. 31, 1954
Number of operating Federal credit unions	7,806	7,227	579		
Total assets	\$1,267,427,045	\$1,033,179,042	\$ 234,248,003	100.0	100.0
Loans to members	863,042,049	681,970,336	181,071,713	68.1	66.0
Cash	105,361,383	97,740,682	7,620,701	8.3	9.5
United States bonds	83,896,302	84,313,214	-416,912	6.6	8.2
Savings and loan shares	181,956,756	143,974,932	37,981,824	14.4	13.9
Loans to other credit unions	24,019,882	17,737,716	6,282,166	1.9	1.7
Other assets	9,150,673	7,442,162	1,708,511	.7	.7
Total liabilities	1,267,427,045	1,033,179,042	234,248,003	100.0	100.0
Notes payable	29,098,259	19,729,224	9,369,035	2.3	1.9
Accounts payable and other liabilities	3,642,212	2,772,413	869,799	.3	.3
Shares	1,135,164,876	931,407,456	203,757,420	89.5	90.2
Regular reserve	39,042,931	31,134,017	7,908,914	3.1	3.0
Special reserve for delinquent loans	2,468,400	2,273,804	194,596	.2	.2
Undivided earnings	58,010,367	45,862,128	12,148,239	4.6	4.4

Public Health Service

Health of the Nation

THE PAST YEAR was one of significant progress in American health. Advances were made in many fields, and the Nation's health status—as revealed in national death rates and the continued decline of the acute, communicable diseases—continued to improve.

Research scientists probed deeper into the causes and cures of today's major diseases. The national network of hospitals and medical facilities continued to expand. Important forward steps were taken to increase the numbers of professional health workers. Many State and local health services were intensified or broadened.

In addition, a substantial number of significant new health measures were requested by the President and enacted into law by the Congress. This included legislation to aid research, to strengthen health services and increase health knowledge, and to augment medical manpower. Although some of these measures did not become law until after the close of the fiscal year, the legislation was drafted, studied, and considered during the period covered by this report.

Among the notable developments of the year was the appropriation by the Congress of the largest dollar increase for medical research in the history of the Public Health Service. The National Institutes of Health, principal research arm of the Public Health Service, began fiscal year 1957 with a total appropriation of \$183 million. This figure compares with a total appropriation for 1956 of \$99 million and for 1940 of less than one million dollars. Most of the additional funds are being used to support research projects by scientists in hospitals, medical schools, health agencies, and private laboratories throughout the Nation.

LEGISLATIVE HIGHLIGHTS

The President also recommended—and the Congress enacted—a new program of Federal aid for the construction of medical research facilities. The program authorizes the expenditure of \$90 million over a 3-year period, to be matched on a 50-50 basis, by medical schools in keeping with the principle of partnership among those engaged in forwarding health.

Better health for the American people depends upon a sufficient number of well-trained professional personnel. During recent years, the shortages in nursing and in trained public health workers have been especially serious. In his special message, the President recommended several measures to aid in stretching the supply of nurses and public health personnel. As a result, the Congress authorized, in Public Law 911, a program of traineeships and advanced study for various types of professional personnel needed in State and local health agencies, and for professional nurses to qualify them for supervisory, administrative, and teaching positions. In addition, a program of grants to the States for vocational training of practical nurses was authorized, to be administered by the Office of Education. These steps, combined with the augmented program of assistance to students and teaching scientists, should enable the Nation to make substantial inroads on the health manpower shortage.

Public Law 911 also included provisions to increase the number of hospital and medical care facilities and to improve the care and treatment of the mentally ill. Both of these measures were enacted at the request of the President. Title 4 of P. L. 911 extended, for a 2-year period, the successful local-State-Federal program of hospital and medical facilities construction (see p. 119) and authorized an increase in funds for the program. Title 5 authorized a program of Federal grants for special studies of the institutional care of the mentally ill. The projects are designed to develop better methods of care of the mentally ill, and to improve administration and services in mental hospitals.

The President also recommended several other steps to improve public health services and to increase knowledge of health needs and problems. One of the important measures enacted by the 84th Congress was authorization for the Public Health Service to conduct a continuing national survey of sickness and disability in the United State (P. L. 652). This will help provide up-to-date and comprehensive information on the extent, nature, and severity of the major diseases and impairments in this country. By the end of the fiscal year, plans were already under way by the Public Health Service to set up the survey mechanism (see p. 92).

To help clean up our Nation's streams and rivers, the Congress enacted Public Law 660, which extends and strengthens the Federal-State water pollution control program (see p. 142).

This year, too, the Congress created a National Library of Medicine within the Public Health Service. The law (P. L. 931) provided for the transfer of the Armed Forces Medical Library from the Department of Defense and authorized the erection of a new building to replace the present obsolescent structure. This Library houses the world's greatest collection of medical literature and is of inestimable value to the medical profession and the Nation. A 17-member Board of Regents, authorized by the legislation, will advise on a site for the new library building. Plans for effecting the transfer of the library from the Department of Defense to the Public Health Service were completed shortly after the end of the fiscal year.

Other health measures enacted during the year or on which substantial progress was made toward enactment were: P. L. 411, which extended the duration of financial assistance to the States for the purchase of poliomyelitis vaccine (see p. 131); P. L. 732, which authorized \$4 million for a new building to house the laboratories of the National Institute of Dental Research; P. L. 830, which authorized the construction of mental health facilities for the Territory of Alaska; P. L. 832, which authorized a Congressional appropriation of \$400,000 to defray the costs of holding the 11th Assembly of the World Health Organization in the United States in 1958; and P. L. 854, which provided salary increases for the Surgeon General and other top officials and for medical and biological scientists in the Public Health Service and other Federal agencies.

Taken together, all these measures represent a broad and comprehensive approach toward meeting many of the Nation's leading health needs. They reflect the deep desires of the American people for a healthier and happier life and the expressed wish of the President to work unceasingly toward that goal. This, then, has been a year of unusual activity in the field of health—by professional and voluntary groups and at all levels of government. America's multipartnership in the health cause has been strengthened and fortified, and should yield even greater dividends in the years to come.

HEALTH RECORD

As already noted, the Nation continued to enjoy good health during the past year. The death rate for 1955¹ was 9.3 per 1,000 population, compared with the 1954 record low of 9.2 and the previous low of 9.6 in 1950, 1952, and 1953. This was the eighth consecutive year that the death rate has been below 10 per 1,000.

¹ All vital statistics are given for the calendar year.

The infant mortality rate, 26.4 deaths per 1,000 live births, remained practically unchanged from 1954. The maternal mortality rate continued its descent in 1955, with 4.7 maternal deaths per 10,000 live births.

The average length of life was 69.5 years for the entire population in 1955, the most recently published life tables for the United States. The average life expectancy was 67.3 years for white males, 73.6 for white females, 61.2 for nonwhite males, and 65.9 for nonwhite females.

An increasing proportion of all deaths was caused by the major cardiovascular-renal diseases. This group accounted for 54 percent of the deaths in the United States during 1955, with a death rate of 506.0 per 100,000 population. Cancer caused 16 percent of all deaths in 1955. The death rate was 146.5 per 100,000 population.

The mortality trend for accidents has been generally downward since 1936. In 1955, the death rate was 56.9 per 100,000 population. In the last 10 years, there has been no definite trend in the rate for motor-vehicle accidents. But the rate for all other accidents dropped nearly a third—to 33.5 in 1955.

Deaths from most communicable diseases continued to decrease. The tuberculosis death rate dropped from 10.2 per 100,000 population in 1954 to 9.1 in 1955. The principal diseases of childhood—scarlet fever and streptococcal sore throat, diphtheria, whooping cough, and measles—which caused about 10 deaths per 100,000 children in 1945, were responsible for about 1 death per 100,000 in 1955. Since 1937, when the sulfa drugs were introduced, the influenza-pneumonia death rate has been cut three-fourths, from 114.9 in 1937 to 27.1 in 1955.

Many infectious diseases also decreased in incidence. Reductions of 20 percent or more were reported for infectious hepatitis, poliomyelitis, malaria, and typhoid fever. In 1955 the total number of reported cases of infectious hepatitis was 31,961, as compared with 50,093 in 1954. The incidence of poliomyelitis decreased from 38,476 in 1954 to 28,985 in 1955. Although the incidence of diphtheria has been decreasing for many years, there was an increase in the number of cases during the latter part of 1955.

BIRTHS, MARRIAGES, AND DIVORCES

About 4,047,300 live births occurred in 1955, slightly more than the total in the preceding year (4,017,362). However, since the population increased nearly 2 percent between 1954 and 1955, the birth rate declined slightly—from 24.9 to 24.6 per 1,000 population. There was a continued rise in the proportion of registered births occurring in hospitals—94.4 percent—and in the proportion attended by physicians—96.8 percent.

The number of marriages increased slightly. There were 1,531,000 marriages in 1955, for a marriage rate of 9.3 per 1,000 population, compared with 1,490,000 marriages in 1954, and a rate of 9.2 per 1,000 population. Figures for 1955 indicate a slight decrease in the number of divorces. In 1954 there were 379,000 divorces, for a rate of 2.4 per 1,000 population.

Change in Leadership

In April 1956, Dr. Leonard A. Scheele was reappointed Surgeon General of the Public Health Service for a third four-year term. Shortly after the close of the fiscal year, Surgeon General Scheele announced his retirement from the Service, effective August 1. President Eisenhower appointed Dr. Leroy E. Burney as the eighth Surgeon General of the Public Health Service on August 3, 1956. A career officer of the Public Health Service, Dr. Burney served as Chief Deputy of the Bureau of State Services from 1954 to 1956 and was Commissioner of Health for the State of Indiana for 9 years.

Funds and Personnel

For its various programs and activities, there was a total of \$485.7 million in funds available to the Public Health Service in 1956 (see table 1, page 153). About \$395 million of this sum was in appropriations and authorizations, with the balance made up of reimbursements for services rendered to other agencies and in unobligated balances from previous years.

Grants to the States for health programs and for construction of health facilities amounted to 39.7 percent of the total funds obligated. Research and training grants to medical, dental, and research institutions represented 16.2 percent of the total.

At the close of 1956, there were 21,268 full-time employees in the Public Health Service (see table 2, p. 155). This number included 1,266 members of the regular Commissioned Corps of the Service, 1,698 members of the Reserve Corps on active duty, and 18,304 full-time Civil Service employees.

Public Health Methods

The Division of Public Health Methods evaluates national health needs and resources in a staff capacity for the Surgeon General. It conducts special studies, develops and applies methods for measuring the extent and nature of disability and illness, and participates in special cooperative projects with public and private agencies. The Division also edits and publishes *Public Health Reports* and the Pub-

lic Health Monographs, media for disseminating information about public health research, practice, and administration.

ANALYSIS OF ILLNESS AND MORTALITY

Legislation enacted during the year authorized the Public Health Service to conduct a continuing national survey and special studies of sickness and disability. The National Health Survey Program, located in the Division of Public Health Methods, will consist of a continuing sampling of the population by means of household interviews designed to secure data on sickness, disabilities, and the medical care received for these conditions. It will also include special studies to collect detailed morbidity information, for example, physical examinations and clinical tests of a subsample of persons interviewed during the household survey. The purpose of the program is to provide statistical information that will define more clearly the extent of illness and disability in the Nation.

The direction of a special survey of Indian health was made the responsibility of the Division in July. Requested by the Committee on Appropriations of the House of Representatives, its purpose is to determine measures needed to bring Indian health to an accepted level. Statistics on the Indian population were assembled and analyzed, and a house-to-house morbidity survey was made at selected reservations. Information on public health services was collected by means of a questionnaire, supplemented by data routinely reported to the Public Health Service. Information on health services provided by the Division of Indian Health was obtained from that Division and by special field studies. A study of economic and social resources available for Indian health was carried on by contract arrangements with universities. A preliminary report was made to Congress at the end of October; a comprehensive report will be submitted later.

A study of surgical experience in selected areas of the United States was completed. In it these observations are reported: Fewer surgical removals of tonsils and the appendix have taken place in small cities and rural areas than in large cities, in nonwhite than in the white population, in eastern cities than in those of the far west, and in families with low incomes than in those with higher incomes.

HEALTH PERSONNEL STUDIES

Part one of a manual, *Cost Analysis for Collegiate Programs in Nursing*, has been completed. Prepared with the assistance of the Division of Nursing Resources, and published by the National League for Nursing, it presents a method for analysis of expenditures. The preparation of part two of the manual continued during the year.

A pilot study that applies cost analysis methods to medical education, in which the Division is cooperating with Emory University,

is nearing completion. This has required detailed study of the financial relationships between the school of medicine and the parent university, the hospital, and other professional schools. The dividing of expenditures according to the primary functions of teaching, research, and service, and the technical problems of allocating indirect expenditures added to the complexities of the study.

Another study nearing completion is that being made in collaboration with the American Hospital Association and the National Association of Social Workers. This study represents the first comprehensive survey in 25 years to determine the extent to which medical social service is a part of hospital care.

In cooperation with the Division of Dental Resources, a report on a special study of original tabulations of dentists made for the Health Manpower Source Book series was published this year in an article on the location of dentists. The location of dentists graduated in recent years was contrasted with the distribution by residence of students attending dental school within the past 12 academic years. Members of the Division made extensive contribution to a publication of the Office of Defense Mobilization released during the fiscal year that reviews for each category of paramedical personnel such characteristics as these: functions, education, supply, demand, aids for teaching and training, and recommendations for overcoming shortages. The Division also provided consultative service to many groups, including representatives from abroad, on problems associated with health and medical personnel.

STUDIES OF HEALTH SERVICES

Among the important studies completed by the Division during the year was one jointly sponsored by the Division of Special Health Services and the Commission on Chronic Illness. This was a study of selected home care programs, undertaken because of the interest in the provision of care to patients at home. Among the findings of the study is the observation that patients of all economic groups, especially those with long-term illness, need coordinated services at home during some phase of illness; yet comparatively few communities have recognized the potential of organized home care.

During the fiscal year, the Commission on Chronic Illness began to terminate its activities, preparatory to eventual deactivation and to the transfer of its functions to other agencies and groups. Among the final tasks, in which the Division is participating, is the preparation of the report of the Commission in a four-volume series entitled "Chronic Illness in the United States." Volume I, Prevention of Chronic Illness, will present the Commission's recommendations and will include a revision of 16 technical statements on preventing chronic disease.

National Institutes of Health

The National Institutes of Health, the main research bureau of the Public Health Service, continued to conduct and support research and research training in the major diseases of our time. In 1956 its laboratory and clinical investigations at Bethesda, Md., as well as its extensive program of research grants, represented about a quarter of the medical research in this country. Approximately two-thirds of the NIH appropriation was awarded to scientists in medical schools, hospitals, and other non-Federal institutions (see table 3, page 157).

Today's medical scientist, in order to make maximum progress, requires highly skilled teams of auxiliary personnel. In December 1955 centralized services at NIH were reorganized and expanded to form two new Divisions—the Division of Research Services and the Division of Business Operations. The research services are performed by branches concerned with biometrics, laboratory aids, plant engineering, research facilities planning, sanitary engineering, and scientific reports. The business operations are the responsibility of branches on financial management, management analysis, offices services, personnel, plant safety, supply management, and a Board of United States Civil Service Examiners.

Another program change was an expansion of activities in the National Microbiological Institute, with a change of name to National Institute of Allergy and Infectious Diseases. NIH now comprises seven institutes and five divisions, including the Clinical Center.

Clinical Center

A total of 443 beds had been activated in the Clinical Center by the end of fiscal year 1956, an increase of 70 over the previous year. Patients hospitalized for study totaled 2,112, and their average stay was 44.5 days. The average daily census was 281. All of these figures represent substantial increases over the preceding year.

One handicap to the clinical program is the continuing nationwide shortages of essential professional workers, particularly graduate nurses. In an effort to attain maximum use of the clinical facilities, an intensive nationwide program of nurse recruitment was begun, in cooperation with other parts of the Public Health Service.

Despite this handicap, a varied and vigorous program of clinical study, closely meshed with NIH's laboratory research, is now firmly established. It has already made numerous contributions, many of which are mentioned elsewhere in this report.

Less tangible, but in the long run not the least of these contributions, is the progression of young physicians who go out each year

from the Clinical Center to the faculties of medical schools, to hospitals and other institutions, and to private practice. These physicians—designated as clinical associates—come to NIH directly from the first or second year of residency in leading general and special hospitals. Under the direction of senior clinical investigators, they provide necessary medical and surgical care for the research patients while also taking part in the research studies.

Many young physicians use their NIH service as qualifying experience toward their chosen medical specialty, and all have an opportunity to learn the techniques and traditions of research medicine. This program is thus enhancing the ability of hundreds of physicians throughout the country to do independent research and to approach the teaching and practice of medicine with the inquiring mind and sharpened skills of the research worker.

Large numbers of physicians, nurses, dietitians, science teachers, and hospital administrators from every part of the Nation and many foreign countries continued to visit NIH, attracted by the new clinical program. The schedule of lectures, seminars, symposia, and clinical staff conferences also attracted many physicians and scientists.

Division of Biologics Standards

The past year has been one of substantial accomplishment for the Division of Biologics Standards, which was created a year ago. The intensified developmental research and testing required for poliomyelitis vaccine, as well as the background research for the entire program, necessitated an increase in staff from 45 to 138 during the year. The need for additional space led to Congressional authority for the construction of a \$3,500,000 building, planned for occupancy by January 1959. Meanwhile, temporary space was made available for immediate expansion of the Division's four programs—viral products, bacterial products, blood and blood products, and control activities.

During the year, the Division strengthened the program concerned with testing the poliomyelitis vaccine. More than 80 million cubic centimeters of vaccine were released—57 million cc.'s of this amount since January 1.

The close cooperation of the manufacturers, the Technical Committee on Poliomyelitis Vaccine, and Division scientists has made possible the development of improved measures for dealing with a number of technical problems affecting consistent and safe vaccine production. These measures involve: (1) suitably spaced filtration procedures to remove aggregates in which virus may be protected from inactivation by formaldehyde, (2) improved sampling methods in the tissue culture tests, and (3) increased sensitivity of the monkey

safety test. This has required an intensified testing program, close observation of manufacturing processes, and a revision of the original requirements for manufacture and testing.

Division scientists are studying human cell lines in tissue culture, with a view to finding one that will be even more sensitive to poliomyelitis virus than the monkey kidney cells now in use. Other workers are studying the possible emergence of resistant mutants or variants to formaldehyde, ultraviolet light, and other inactivating agents; and methods for improving the potency test of the vaccine.

The Division is also concerned with such problems as the purification of rabies vaccine, the classification and isolation of influenza virus, the control of serum hepatitis, and methods for extending the storage period of blood for transfusion. A complete panel of red cells of known antigenic makeup has been prepared for identification of antibodies of unknown bloods. In addition, complete genotyping of families with hereditary abnormalities is being done in a search for red cells of unusual types.

Division of Research Grants

Because the conquest of many diseases depends to a large extent on a vastly increased understanding of fundamental biological structures and processes, the Division of Research Grants placed particular stress on the support of basic medical research during the fiscal year. These biological structures and processes contain the ultimate signals of any abnormality preceding a disease process. Many of these signals, however, remain so delicate and subtle that we have not yet been able to develop the necessary skills, apparatus, or methods required to establish valid criteria or baselines.

In order to aid the numerous scientists attempting to furnish these criteria, the Division of Research Grants, through its recognized authorities composing the National Advisory Health Council and the various Study Sections, instituted new programs specifically designed to increase the number and special training of research scientists in the fields of biophysics, instrumentation, and pathology. Reward from this support was evident in the degree of progress made in these fields, as well as in biochemistry, histochemistry, metabolism, reproduction, endocrinology, physiology, and radiation.

Especially conspicuous was the advance made in obtaining more highly purified ribonucleic compounds for study. These compounds, predominant in the genes, control the development of the individual as well as the heredity of unborn generations. Hence, the effects of radiation and numerous deleterious chemical substances have been intensively explored.

Significant progress was also made in understanding how certain metals, serving as part of an enzyme system, react within the body as a "claw" that reaches out and fastens itself to certain proteins. The year was further marked by a more widespread use of techniques primarily designed for the physical sciences. On one grant-supported project, the emission spectroscopy revealed previously unidentified inorganic material in the biological sample.

Institute of Allergy and Infectious Diseases

A major development at NIH during the year was the delegation to the National Microbiological Institute of responsibility for a broad program of fundamental research on allergy. Authorization was made by the Surgeon General and became effective December 29, 1955.

It was also decided to change the Institute's name to the National Institute of Allergy and Infectious Diseases. The new name not only reflects the importance attached to the program; it also emphasizes the close relation of allergy to the study of infectious diseases, particularly those concerned with immunology.

The decision to initiate an expanded research program in allergy was the outgrowth of a series of conferences at the National Institutes of Health, attended by some of the Nation's leading authorities in allergy and immunology. It was decided that major emphasis should be placed on grant-supported studies to encourage scientists in schools and hospitals to investigate problems in this long-neglected field.

An estimated 10 percent of the population in this country suffers from some form of allergy, with asthma victims alone numbering between one and two million. Despite the widespread prevalence of these disorders, present knowledge of allergy is meager. This is particularly true concerning the underlying mechanisms of the allergic response.

One of the most notable areas of progress in infectious disease research in the past year was the field of common respiratory diseases. An experimental vaccine developed by scientists of the Institute against one type of APC virus was tried out in prisoner volunteers and was shown to provide substantial protection against induced infection. On the basis of these results, a field trial in cooperation with the Navy was initiated in January 1956 to evaluate an APC vaccine made from three strains of virus which are an important cause of respiratory disease in military recruits. This group of viruses, recently renamed adenoviruses, produce grippe-like illnesses. They are not the cause of nonfeverish illnesses commonly termed colds. The vaccine effected a significant reduction in the occurrence of acute respiratory disease due to the APC virus prevalent during the period of observation.

Institute scientists succeeded in crystallizing Coxsackie virus for the first time. Isolation of a human virus in crystal form was first achieved in 1955 by University of California scientists working with poliomyelitis virus grown in tissue culture. The NIAID studies represent the first time any virus has been obtained in pure crystal form directly from animals. Purification of viruses opens new opportunities to study their chemical makeup and immunological reactions.

New advances were reported in tissue culture studies aimed at defining the minimal nutritional requirements of various cell lines. Thus far, Institute scientists have shown 27 factors to be essential for survival and growth of cells in the test tube. Among these are 13 amino acids and 8 vitamins, including inositol, one of the least understood of the vitamins and one for which there is no evidence of a requirement in man.

In studies of the nutritional requirements of certain parasitic worms, Institute scientists have succeeded in cultivating in the test tube for the first time a nematode parasite of a vertebrate through its entire life cycle. As a result, studies can now be made with parasites exposed to a predetermined environment uncomplicated by the bacteria normally found in the intestinal tract of laboratory animals.

During the past year, scientists of this Institute reported isolation of type 1 poliomyelitis virus from an infant born at the time his mother was in a respirator suffering from acute poliomyelitis. This is believed to be the first time a subclinical infection with poliomyelitis has been demonstrated in a newborn infant. The child's growth and development have been normal.

RESEARCH GRANT STUDIES

Grant-supported studies in the Nation's universities and other research institutions produced a number of significant results. A University of Chicago scientist, for example, demonstrated that an outbreak of the pulmonary fungus disease, histoplasmosis, was caused by inhalation of spores while spreading infectious chicken manure compost on garden soil. Another study at Iowa State College showed a marked reduction in the number of trichinae, the microscopic parasites causing trichinosis, in bulk and untreated-link sausage over the number found 10 years earlier. This reduction is probably due to sterilization of the garbage fed to hogs or to elimination of garbage feeding. Tests carried out on smoked and heat-treated link sausage yielded no trichinae.

Institute of Arthritis and Metabolic Diseases

Research conducted and supported by this Institute during the year yielded a number of important developments. Progress has

been notable both in basic studies directed toward development of fundamental knowledge of the complex metabolic processes and in clinical investigations seeking improved methods of treatment.

PROGRESS IN RESEARCH

Highlighted in this report last year was the fact that NIAMD had conducted the first clinical trials of two new steroid compounds, prednisone and prednisolone. These chemical cousins of cortisone were reported to be several times as potent as the older steroid in the treatment of rheumatoid arthritis, yet safer to use because they did not cause certain untoward side effects. During the past year these new drugs have, in everyday use, borne out the preliminary findings of the scientists. They are now rapidly replacing cortisone and hydrocortisone in the treatment of rheumatoid arthritis and several other diseases. Meanwhile, the search for even better antirheumatic drugs continues.

Research in the field of metabolism yielded a discovery which can result in saving the lives of many children suffering from a usually fatal hereditary disease of infants—galactosemia. Institute scientists found in the blood of normal persons a new enzyme which makes it possible for the body to convert one of the sugars in milk, galactose, into glucose (blood sugar), which produces energy. Searching further, they found that children suffering from galactosemia lacked this enzyme. Now that the basic cause is known, a relatively simple diagnostic test is made possible. This is important because early diagnosis and treatment are vital. Treatment of the disease, when diagnosed, is simple: removal of milk from the diet.

Another promising compound, 9-alpha-fluorohydrocortisone, was studied intensively last year as a part of the Institute's continuing search for improved antiarthritis drugs. It was found to be 20 to 40 times more potent than cortisone in its antirheumatic action, but unfortunately, it caused serious side effects which will prevent its use in the treatment of arthritis.

It is a noteworthy event when pain-relieving power similar to that of morphine is demonstrated in a new chemical type. Chemists at the Institute have produced such a compound. Preliminary tests indicate that the new drug has low addiction liability.

Institute scientists have found that a well-known chemical sterilizer, ethylene oxide, destroys essential vitamins in food products, even though thoroughly removed from the products before marketing. It is employed in industry to sterilize food items when steam or other conventional methods cannot be used.

One of the principal hormones secreted by the pituitary gland controls the activity of the thyroid gland. NIAMD investigators have developed a sensitive, accurate, and rapid method by which this hor-

mone may be assayed. The method is being used to guide efforts to isolate and purify the hormone in the laboratory.

Searching for new raw material sources for the synthesis of anti-arthritis drugs, chemists at the Institute have extracted from the dried leaves of a shrub which grows wild in Paraguay the sweetest natural product yet known, a substance called stevioside, which is 300 times sweeter than table sugar (sucrose).

During episodes of acidosis, which lead to coma and death, diabetics often are unresponsive to insulin. Institute scientists have shown that the plasma of patients with diabetic acidosis contains a material which suppresses or abolishes the effect of insulin. Search for the source of this insulin inhibitor is continuing.

PROGRESS IN GRANTS

Through its extramural programs, NIAMD supports research projects in non-Federal institutions throughout the country, provides grants to medical schools for graduate training programs, provides research fellowships for medical students, and awards training stipends which enable physicians to develop specialized skills in the rheumatic and metabolic diseases. Research grants recommended by the National Advisory Arthritis and Metabolic Diseases Council yielded such results as the following.

Although degenerative joint disease (osteoarthritis) is considered to be largely due to wear, tear, and irritation of the joints, grantees at Washington University, St. Louis, have found that laboratory animals fed a high-calorie, high-fat diet are more likely to develop this disorder than animals that are underfed.

At Yale University, grantees have developed a technique by which high-frequency sound waves are used to break up urinary calculi—stones found in the kidney, bladder, and ureter.

At the Boston Children's Hospital, grantees have developed a new diagnostic test for mucoviscidosis, also known as fibrocystic disease of the pancreas, which is nearly always fatal if not found at an early stage. The new test, 98 percent accurate, is based upon analysis of sweat and is much more simple than the test previously used.

At Johns Hopkins University grantees have found that one of the complications of diabetes, diabetic retinopathy, a disease of the retina of the eye, is linked to an apparent inability of the affected individuals to utilize vitamin B₁₂.

Cancer Institute

The age-adjusted cancer mortality rate for women continued to decline slowly, following a trend which began about 1935. By 1954, the rate dropped to the level which prevailed in 1910. In contrast to

this trend, the age-adjusted death rate for males is steadily increasing, and there is no indication of a slackening in the immediate future. Between 1950 and 1954, the respiratory system accounted for two-thirds of the rise in male mortality rates for all sites.

The Third National Cancer Conference was held under joint sponsorship of the Institute and the American Cancer Society. Arrangements were completed for the *Journal of the National Cancer Institute* to be issued monthly, beginning July 1, 1956, after 16 years as a bimonthly publication.

NATIONAL CHEMOTHERAPY PROGRAM

The Cancer Chemotherapy National Service Center, headquarters for the national voluntary program of cooperative research and development in chemotherapy of cancer, completed its first year of operation. Under the guidance of advisory groups, steps were taken to stimulate, support, and assist research in cancer chemotherapy. Approximately 6,800 chemical compounds were procured for the screening program. These came principally from educational institutions, government installations, and industrial firms. Financial support was given for the synthesis of new chemical agents and for the procurement of relatively large amounts of chemical agents that warrant extended investigation. Contracts for screening chemicals were let to five laboratories, providing a total capacity for annual evaluation of between 5,000 and 10,000 compounds against three mouse-tumor systems.

Preclinical pharmacological testing on five drugs was begun at the Food and Drug Administration under an arrangement whereby the FDA will provide the Center with a rather complete preclinical workup of compounds, at the rate of one or two a month.

LABORATORY AND CLINICAL STUDIES

The wide range of research activities at the Institute produced significant accomplishments in both laboratory and clinical studies. New advances in cancer knowledge were reported by Institute scientists working in the fields of biology, biochemistry, chemical pharmacology, physiology, endocrinology, radiation, and surgery.

Studies at the cellular level were assisted by the development of techniques for growing massive, long-term tissue cultures outside the body. Cells were grown freely suspended in a rapidly shaking nutrient fluid. By this method cultures can be grown weighing as much as 21 grams, whereas conventional methods permitted the growth of cultures weighing only 20–50 mgs.

The remarkable power of the amino acid arginine to reduce lethal toxicity of amino acid mixtures such as those used for intravenous feedings was reported by Institute scientists. It was later found that

administration of arginine at the appropriate time will permit survival of all rats receiving a lethal dose of ammonium ion. This observation emphasizes the need for studying metabolism of ammonia, or ammonium compounds formed by molecular rearrangements within the body, as a practical problem in feeding by vein the patient who cannot eat.

A new synthetic, water-soluble, complete diet has been developed and used successfully by Institute scientists in growing rats from the weanling stage through maturity.

A new drug, Amphenone, developed by Institute scientists, was used successfully to suppress the functions of the adrenal glands. Hormones produced by the adrenals apparently play a role in the growth and development of some cancers. Drugs like Amphenone may become effective substitutes for surgical removal of the adrenal glands in patients with breast cancer for whom adrenal surgery has a palliative effect. It has also brought adrenal overactivity under control in other patients who suffer from cancer of the adrenal glands or adrenal overgrowth.

Studies in radiation therapy have shown that both tumor response and normal-tissue tolerance may be improved if effective doses of ionizing radiations are administered over prolonged periods of time rather than in shorter periods as generally practiced.

Institute scientists have reported that the cause of hypoalbuminemia in cancer patients appears to be a defect in the rate of production of albumin in the body. Hypoalbuminemia is a decreased concentration of circulating albumin, a blood plasma protein. This observation was made in the course of a study of the distribution and metabolism of blood proteins of cancer patients.

STUDIES SUPPORTED BY GRANTS

Activity of scientists working under grants covered all phases of research on the cancer problem: the cancer-producing process, improvements in diagnostic and therapeutic procedures, and host-tumor relationships. In the search for drugs to block certain chemical pathways necessary for the growth of cancer, grant-supported scientists found that selenium cystine produced temporary remissions in a few leukemia patients. In one patient this drug appeared to neutralize the resistance that he had acquired to another drug, 6-mercaptopurine. The occurrence of disagreeable side effects indicates the need for further study.

A grantee has observed that bile may carry a substance that produces cancer specifically in the biliary system. Subcutaneous injection of bile from individuals with cancer of the bile duct into hamsters and mice produced cancer of the bile duct in some of the animals and cancer of the liver in others. In sharp contrast, hamsters tested with

bile from normal individuals and from those suffering from benign biliary tract disease showed only sloughing of the skin at injection sites.

Some light was shed on duplicating biologic systems by a study in which living virus was separated into its major components—a protein and a nucleic acid—and was then caused to reconstitute itself through proper mixing. The reconstituted virus regained the attributes of life: it infects other cells and reproduces. This study has an important potential for extending knowledge of viruses that cause cancers or destroy them and of the growth and multiplication of cancer cells.

BIOSTATISTICAL AND FIELD INVESTIGATION STUDIES

“Morbidity from Cancer in the United States, Part I,” a definitive work on the occurrence of cancer in 10 metropolitan areas, was published. Results of a survey on the distribution of smoking patterns in the country, taken by the Bureau of the Census for the Institute, were tested on the relation between smoking and lung cancer. The study indicated that the risk of lung cancer for the total population of the United States appears to correspond to that found in earlier studies of selected groups of smokers and nonsmokers.

Analysis of recorded mortality among Navajo Indians has confirmed the presumed deficit of cancer and cardiovascular-renal disease in this population group.

Studies of the cell examination techniques for early detection of uterine cancer, initiated 3 years ago in Memphis, Tenn., were widened by establishment of field projects in eight different areas of the country. The new centers will provide comparative data for the establishment of true incidence rates and more information on the natural history of carcinoma in situ. One objective is to demonstrate that eventual widespread application of this screening technique will help eradicate cervical cancer.

The results on 75,000 patients with cancer during a 17-year experience were analyzed in a collaborative study with the Connecticut State Department of Health. There has been a significant improvement in survival rates, not attributable to earlier diagnosis, and referable particularly to specific sites of the rectum, colon, and uterus.

CANCER CONTROL AND RESEARCH TRAINING

Grants in the amount of \$2,250,000 were made to health agencies in 47 States and 4 Territories for the support of cancer programs. These are directed toward expansion and wider use of cancer diagnostic and treatment services.

Manpower resources in the cancer field were augmented under the Institute's three specialized training programs: teaching grants to medical, dental, and osteopathic schools; support of physicians in clinical traineeships; and support of research fellowships to promis-

ing young scientists. The latter two programs have been in operation for 18 years.

Institute of Mental Health

The challenge of the national mental health problem resulted in important forward strides in 1956. These included measures of Federal and State legislatures, development of more effective research tools and treatment techniques, increasing numbers of trained scientific and professional personnel, and greater interest and participation in mental health activities by citizens and private organizations.

Early in the fiscal year, Congress enacted the Mental Health Study Act (P. L. 82), which provided for a thorough review and evaluation of current knowledge concerning resources, methods, and practices for dealing with mental illness. The study is expected to produce recommendations on how to extend psychiatric knowledge and how to make more effective use of professional personnel and facilities, both in short supply. Under the terms of the act, the National Institute of Mental Health awarded a grant to the Joint Commission on Mental Illness and Health, Inc., to conduct a nationwide analysis and evaluation of the human and economic aspects of mental illness. The Commission's membership includes representatives of the American Medical Association, the American Psychiatric Association, and 19 other national organizations having a major interest in the social, legal, scientific, clinical, and psychological aspects of mental illness.

In every State during 1956, there was an accelerated effort to meet mental health needs. There were increasing requests for technical and consultative services in State hospitals and institutions, in professional and community education programs, and in clinic and rehabilitative services. Consultants in special areas such as drug addiction were added, and work was extended on alcoholism, school mental health, and inpatient services for emotionally disturbed children.

The Institute also worked with the States on two other major mental health problems—juvenile delinquency and mental retardation. Grants to support a wide range of basic and applied research were increased in both of these areas. In addition to expanded research, the Institute made available the services of specialized staff to State and private organizations and to other Federal agencies planning and evaluating remedial action.

The States also focused attention on extending community mental health services. Such services contribute to mental health generally, help prevent admissions to hospitals, and increase the numbers of persons who can be discharged from mental hospitals. Several States enacted legislation providing for matching local community mental health expenditures on a 50-50 basis.

Regional cooperation by States in the field of mental health continued to grow. Pooling of mental health resources has enabled each participating State to benefit from the facilities of a total area, rather than from its own facilities alone. The most recent of these inter-State compacts for mental health—and the second to be supported by an Institute grant—was undertaken by the Western Interstate Commission for Higher Education.

ADVANCES IN TRAINING

During the past year, Institute grants supported graduate training in clinical psychology, psychiatric nursing, psychiatric social work, public mental health, and psychiatry. Other grants were awarded to medical schools to improve psychiatric instruction.

In addition to extending the training opportunities for personnel associated with the mental health professions, grants were made to support various pilot projects in evaluating teaching methods and training procedures. A grant awarded to the College of Nursing at Wayne University has among its objectives the determination of the value of an investment in preservice education for psychiatric aides. Scheduled for intensive study are the effects of such training on patient care, the proper content and teaching methods for a preservice program, and the identification of those areas of supervision and administration which can be safely assumed by the trained aide in caring for the psychiatric patient.

Attention was also given to providing mental health training courses for lawyers, teachers, ministers, and others who deal with human problems. One current grant to the Law School of the University of Pennsylvania is to develop the curriculum content and methods for training law students in the behavioral sciences. Nine grants were awarded in support of institutes for general practitioners, pediatricians, psychologists, and other professional personnel to acquaint them with recent advances in research on mental retardation and techniques for counseling parents of retarded children.

DEVELOPMENTS IN MENTAL HEALTH RESEARCH

Both the intramural and extramural research programs of the Institute benefited from the intensified application of techniques derived from a wide range of scientific disciplines. A strong stimulus to research came from statistical studies. The collection and evaluation of data from mental health clinics and hospitals and the development of unified reporting systems on a nationwide basis have raised a host of questions concerning etiology, treatment, and types of community services that can and should be provided.

In the research grants program of the Institute, increased research potential has made possible a growth in large, multidisciplined, pro-

gram-type projects as well as expanded efforts in clinical psychology and psychiatry and basic physiological, psychological, and sociological investigations.

The several grants made to finance conferences were an indication of the Institute's concern for certain special areas of research. Grant support was given to the American Psychological Association's National Conference for Planning Research on the Psychological Aspects of Aging. Another was made for the Symposium on Interdisciplinary Research in the Behavioral, Biological, and Biochemical Sciences held at the University of Wisconsin. In such conferences, leaders in relevant research fields met to synthesize their collective knowledge and to determine the direction of their future efforts.

A psychopharmacological conference, cosponsored with the National Research Council and planned for the fall of 1956, has aroused much interest because of the widespread use of tranquilizing drugs in the treatment of mental disorders. It is expected that the conference will take up the many ways that drugs act upon mental state and mental disease. The relation observed between certain drugs and normal body substances poses the challenging possibility that chemical imbalances may be a factor in the development of some mental diseases. The identification made this year of the chemical disturbance in phenylpyruvic oligophrenia (a disorder associated with mental retardation) has led to its prevention and treatment.

Institute of Dental Research

The National Institute of Dental Research continued its search for further evidence of the cause of tooth decay and disease of the oral tissues. The Institute continued to demonstrate the inhibitory effects of fluoridated drinking water on dental caries.

Greater emphasis was placed on the study of periodontal diseases, which are often seen among older persons. Preliminary findings suggest that, to be effective, efforts at prevention of periodontal disease must begin early in life.

There is continuing evidence that the heat processing of certain protein foods may bring about nutritive changes which become a factor in dental caries. Proteins are thus being seriously considered in nutritional studies on dental disease.

In continuing research on dental metabolism, the evidence suggests that the physiological activity of the dental enamel may be of major importance in determining susceptibility to dental caries.

A histochemical technique has been developed for diagnosing tissue disease through detection of the proteolytic enzyme peptidase. In a study of tumor tissue, the technique reveals changes that cannot be

seen with routine staining methods. The investigation may, therefore, prove of value in fields other than dental research.

Hereditary defects in tooth structure were studied in 63,000 school children in Michigan. Part of the study involves a comparison with a group of about 4,500 isolated people, found along the Atlantic seaboard. Two dental conditions were identified.

Studies on the etiology of dental caries and periodontal disease in laboratory animals are going on. Bacteriological studies include the effects of various antibiotics and their relation to prevention of decay. The periodontal tissues and the salivary secretions are being studied for biochemical and enzymatic properties related to oral diseases.

New and improved techniques for preparation of specimens for electron microscopy and diffraction are being developed. Research in the biologic effects of ultrasound on human tissues other than teeth are also under way. Particularly to be determined is the kind of radiation set up by ultrasonic equipment.

Institute of Neurological Diseases and Blindness

The Institute's expanded research program in neurological and sensory disorders has resulted in several advances in the diagnosis, treatment, and prevention of many chronic and crippling conditions. Intramural investigations were coordinated with research grant projects on the development, activity, and function of the brain and nervous system.

Studies on the embryology, pathology, cytology, histochemistry, and biochemistry of nerve cells and fibers of the brain and spinal cord are under way. Other studies concern the experimental production of cerebral palsy by means of anoxia, birth injury, anesthesia, and cerebral vascular damage.

Investigation of the microstructure of nerve cells, fibers, junctions, and terminals with the electron microscope and micrograph, and studies on the nerve impulse and rapid ion movements, have provided new leads in nerve-muscle research.

Experimental studies of thermoregulatory mechanisms of the autonomic nervous system and research on the effects of drugs and irradiation on the brain centers that regulate body heat, water balance, sleep, visceral activities, and endocrine secretions have resulted in better understanding of many neurologic disorders.

Studies on the development, regeneration, vascular supply, and functional restitution in the central nervous system have led to further investigations of the fever-producing mechanisms which facilitate nerve regeneration.

Valuable information on sensory disorders has been found in studies of the auditory and vestibular tracts, the sensory mechanism of the inner ear, taste bud degeneration and regeneration, and effects of anesthetic agents in relief of pain and toxic change.

Other projects included investigation of cerebral hemodynamics; studies on nutritional, metabolic, enzymatic, and endocrinal aspects of neurological disorders; and production of Parkinsonism in monkeys by reserpine and other drugs.

CLINICAL PROGRESS

Significant progress was made in the field of neuromuscular disorders. New drugs and electronic techniques provided valuable knowledge of the biochemistry and electrophysiology of muscle and neuromuscular function. Biochemical studies of blood and urine, using radioactive tracer techniques, and protein metabolism studies in patients with muscular dystrophy and related diseases, have yielded important data.

A new approach to the causes and course of multiple sclerosis involves the production of experimental demyelination. Electrophoretic studies and biochemical analysis of gamma globulin in multiple sclerosis patients provided new leads to differential diagnosis and prognosis.

Experimental studies on control of respiration and blood flow by the central nervous system show that the anterior spinal artery may carry enough blood to sustain medullary respiratory and vasomotor center function. Studies on effects of temperature on the myoneural junction show that relatively low frequencies of electrical stimulation initiate tetanus in the hamster at low temperatures.

Neurosurgery studies contributed to the knowledge of focal epilepsy, localization of motor and perceptual functions, speech, memory and consciousness; and surgical relief from pain has been progressively successful.

In collaboration with NIAID, the therapeutic effects of pyrimethamine on patients with toxoplasmic uveitis and of metacortin and other drugs on inflammatory eye diseases were evaluated. Studies of adenopharyngeal conjunctivitis have determined the viral cause and course of the disease. Tissue culture studies have shown that the APC virus, type 8, is immunologically similar to the virus causing epidemic keratoconjunctivitis.

Studies on glaucoma show that eye pressure changes elicited by central stimulation are secondary to coexisting changes in the systemic blood pressure and independent of striate muscular activity in the orbit. Other investigations show that ionizing radiation, nutritional deficiencies, metabolic agents, and drugs can produce cataractous changes. Electroretinographic studies have resulted in evaluation of

photopic and scotopic responses in patients with hereditary retinal degeneration. Because histological and serological studies indicate that 20–25 percent of all granulomatous uveitis may be due to infection with *Toxoplasma gondii*, a more accurate diagnostic test for presumptive ocular toxoplasmosis, an agar-diffusion technique, has been devised to replace the so-called toxoplasma dye test.

Radioisotope studies with malignant tissue of the eye indicate that the beta-emitting P^{32} uptake of ocular melanomas is often too slight to assure detection by external counting.

The glutamine-asparagine studies have led to greater emphasis on the investigation of gamma amino butyric acid, which is of vital importance in the metabolic processes of the brain. A dramatic corollary of this work has been the relief from seizures in cases of total or partial removal of the temporal lobe.

RESEARCH GRANT ACCOMPLISHMENTS

Several compounds called hydroxylamine derivatives, which seem to act as true antidotes for the nerve gases, have been synthesized.

Preliminary studies suggest that migraine headaches may be promptly terminated by intravenous injection of norepinephrine, a blood vessel constrictor.

Studies on barbiturate poisoning and insulin coma show that electrical stimulation to the head provides a beneficial restorative effect. Peripheral electrical stimulation was found to be as effective as cranial stimulation.

Studies on the origin of childhood convulsions show that Nissl stain may provide a histochemical means of assessing protein metabolism in the brain.

In the studies on epilepsy, scientists found that the anticonvulsant action of Diamox is unrelated to its inhibitory effect on enzymes controlling kidney excretion and the resultant acidosis, and that ammonium chloride influences the anticonvulsant action of Diamox, independently of enzyme inhibition.

The final report on retrolental fibroplasia reaffirms that oxygen in high concentrations given routinely to premature infants is a major contributing factor of this disease. The report also validates earlier findings that the use of oxygen can be limited to clinical emergencies without affecting the survival rate of premature babies.

Heart Institute

More than half of the Nation's deaths and much of the physical disability of its population are attributable to heart disease. The problem is complex, embracing over a score of cardiovascular disorders. To meet it, new knowledge must be gained through research

and applied widely. The programs of the National Heart Institute are focused on these goals.

Substantial progress was achieved in 1956. In research conducted by the Institute, important findings increased fundamental and clinical knowledge of the underlying disease processes affecting the heart and circulatory system. Significant advances also resulted from grant-supported research in universities and hospitals. Training activities aimed at increasing the supply of persons qualified in research and clinical aspects of cardiovascular disease were extended. In cooperation with the Bureau of State Services, the control of heart disease was fostered, and States and localities were assisted in developing community heart programs.

PROGRESS IN HEART RESEARCH

The process which underlies atherosclerosis, the most common form of hardening of the arteries, is an accumulation of fatty materials in the lining of blood vessels. Because this may be due to an abnormal handling of fatty substances in the body, a major part of NHI research is concerned with the study of mechanisms involved in the absorption, distribution, and utilization of fats and fatty substances. Just as detergents are required to make fatty substances soluble in water, special chemical entities are necessary for transporting fat in the watery fluid of the blood. In the blood plasma the fats are carried attached, in complex arrangements, to the plasma proteins. The attachment of fat to protein does not, in general, occur spontaneously, but requires the mediation of certain enzyme systems. The operation of those systems has been under intensive study, and some of their components have been clarified by Institute investigators.

One facet of the problem, previously puzzling, is now open to solution. It has been known for some time that injection of the anticlotting drug, heparin, causes the enzyme system to appear in the circulating blood. This system can break down large fatty aggregates believed to be directly related to atherosclerosis, but whether the heparin merely causes activation of the enzyme system or is an integral part of it has not been known. A definitive answer to this question will be made possible through the Institute's recent development of a strain of bacteria by which heparin is specifically destroyed.

The drug, reserpine, derived from Indian snake root and now used widely in the treatment of hypertension and mental disorders, continued to be the subject of investigation. NHI studies have shown that the effect of reserpine is due to its property of causing the release of serotonin, a substance previously thought to play a role in the regulation of the blood pressure through a direct effect on blood vessels. It now appears that the pertinent effect of serotonin is probably in the central nervous system, where it may be involved in the transmission

of nerve impulses within the brain centers. Particular interest lies in that center concerned with the control of blood pressure. The implications of this finding and its various facets—relevant not only to heart problems but to nervous and mental functions as well—are being extensively explored.

The essential discovery in this area and the entire present exploration have been made possible by a new analytical instrument, the spectro-photofluorometer. This instrument, devised in NHI laboratories, makes possible the identification and quantitative measurement of minute amounts of a wide variety of substances by means of the characteristics of the light they emit when excited with ultraviolet light of particular wave lengths. The notable and unforeseen applications of the instrument are an excellent example of the way in which fundamental developments contribute to scientific progress in directions which cannot be anticipated.

When the heart muscle can no longer carry the load imposed upon it, a characteristic complex of derangements and symptoms ensues. Breathlessness and swelling of the ankles and legs are the most commonly observed features. These symptoms are those of congestive heart failure and, in general, are directly attributable to retention in the body of excessive amounts of salt and water. The secretion by the adrenal gland of excessive amounts of the hormone aldosterone has been shown in previous Institute work to be the immediate cause of most of this retention. Studies aimed at determining the normal stimulus for secretion of this hormone are progressing and may provide the key to identification of the source of abnormal stimuli in cardiac failure.

Studies are also in progress in evaluating the various factors which make up the workload of the heart muscle and determine its requirements for oxygen and oxidizable foodstuffs. It has been found that the oxygen used by the heart muscle of the experimental animal is directly proportional to the pressure against which the heart must pump the blood and to the frequency of the heart beat. Surprisingly, there appears to be no relation of oxygen requirements to the volume of blood expelled with each beat. If these findings are confirmed in more extensive experiments, they will have an important bearing on the handling of patients, since it is when the demands of heart muscle for oxygen exceed supply that angina pectoris results. It is probable that the significant workload leading to enlargement of the heart and congestive failure is that which increases the demand for oxygen.

In surgical studies, the further development and evaluation of diagnostic techniques is continuing, and the application of low temperatures to surgical approaches to the interior of the heart has been furthered. Considerable effort has been devoted to the problem of artificial heart and lung devices for the maintenance of vital circula-

tion during open heart surgery. Studies of the use of plastics to substitute for blood vessel segments and for the possible replacement of damaged valves are also being pursued. Of particular interest is a procedure and device for the complete bypass of aortic heart valves by rerouting the main course of outflow from the heart at the end of the left ventricle opposite from the normal egress through a valve-containing plastic tube directly into the aorta, the body's main arterial trunk. The flaws in this procedure have now been virtually eliminated, and animals so treated have shown remarkable health and exercise-tolerance.

ACCOMPLISHMENTS THROUGH RESEARCH GRANTS

Grants made by the Institute resulted in notable advances in many areas of research. In arteriosclerosis, a number of projects dealt with the possible influences of dietary factors in producing conditions favorable for the increase of the fatty substance, cholesterol, in the blood and in the walls of arteries. One investigator reported studies of high and low cholesterol diets in several groups of men in the United States and in two groups on the Island of Sardinia, where the type of diet differs considerably from that in this country. The results, in all groups, indicated that the serum level of cholesterol is essentially independent of cholesterol intake in the diet. Other researchers produced findings showing that the amounts of fats consumed influenced cholesterol levels and that different types of fats apparently produce varying effects.

Important contributions to understanding the causes and mechanisms of blood clotting were made. One team of investigators prepared a purified prothrombin, one of the substances involved in the early stages of clot formation, and was thus able to determine more exactly its characteristics and how it becomes converted to thrombin in the development of a blood clot. Another group succeeded in purifying accelerator globulin, a substance in blood which is recognized as the agent that facilitates the conversion of prothrombin to thrombin. Use of these purified substances should clarify much that is yet unknown concerning the process of clot formation.

Progress continued to be made in heart and blood vessel surgery. A difficulty encountered in grafts for the repair of blood vessel injuries is incompatibility between the transplanted and host tissues and the consequent failure of incorporation of the graft. An investigation completed in 1956 indicates that controlled chemical treatment (with ethylene carbonate) of blood vessel segments to be used as grafts may offer a solution to this problem.

A remarkable surgical development reported during the year was the origination of a simple, inexpensive oxygenator-pump, composed chiefly of plastic tubing, which can substitute temporarily for the

heart and lungs of patients undergoing heart surgery. The apparatus has been used successfully in many operations on the interior of the heart.

Bureau of Medical Services

The Bureau of Medical Services administers the programs of the Public Health Service which relate to care and protection of the individual; the health program for American Indians; aid in the construction of community hospitals and health facilities; development of the Nation's nursing and dental resources; and foreign quarantine. It operates the hospital and outpatient facilities of the Service and gives professional supervision to members of the Service staff assigned to other Federal agencies to direct their health programs.

Hospitals and Outpatient Facilities

The Division of Hospitals conducts the medical care program for American seamen and other legal beneficiaries of the Public Health Service. Beneficiaries include officers and enlisted men of the U. S. Coast Guard, commissioned officers of the Public Health Service, Civil Service employees of the Federal Government injured or taken ill in the course of their work, and several smaller groups. Patients with leprosy and persons addicted to narcotic drugs as defined by statute are treated in special hospitals.

The Division also administers the Federal employee health program. Federal departments, at their request, receive consultative help in establishing or improving health activities for their employees; 22 health units are conducted on a reimbursable basis.

In 1956, the Division maintained 16 hospitals, 25 outpatient clinics, and 96 outpatient offices; in addition, 58 physicians served active Coast Guard and Coast and Goedetic Survey personnel. Of the hospitals, 12 provide general medical and surgical services, 1 is exclusively for patients with tuberculosis, 2 treat narcotic addiction and neuropsychiatric disorders, and the combination hospital-community at Carville, La., cares for persons with leprosy. Most of the hospitals are in major port cities, including Boston, New York, Baltimore, New Orleans, San Francisco, and Seattle. The outpatient clinics are staffed by full-time personnel and provide a range of medical, dental, and allied health services. The outpatient offices are conducted by local physicians in their private offices on a part-time basis, as needed.

During the year, action was taken to integrate more of the outpatient clinics with hospitals in the same geographic areas. The outpatient clinic in Portland, Maine, became a unit of the Boston hospital; the clinic in St. Louis, Mo., was merged with the Chicago

hospital; and the outpatient clinic in New York City was made a section of the outpatient service of the hospital on Staten Island.

VOLUME OF SERVICES

Inpatient admissions in all the hospitals rose 6 percent—from 45,852 in 1955 to 48,627 in 1956. The average daily census remained approximately the same, at 5,412. The average length of stay per patient dropped $2\frac{1}{2}$ days. The number of outpatient visits went up 4 percent to a total of 1,042,000.

The general hospitals admitted 43,399 patients in 1956, compared with 41,379 in 1955. The daily number of patients averaged 2,765, about the same as the previous year.

Tuberculosis.—The tuberculosis hospital, at Manhattan Beach, Brooklyn, N. Y., operated at its 325-bed capacity, a decrease of 14 patients from 1955. All the accepted newer drugs for treating pulmonary tuberculosis are used, as indicated, and the staff keeps abreast of the status of experimental drugs and therapeutic procedures for other chest diseases. Cardiopulmonary function facilities were expanded to include cardiac catheterization procedures on patients in need of them. A special education program for patients nearing discharge was begun, and training conferences for tuberculosis patients who also have diabetes were continued.

Leprosy.—The Public Health Service Hospital at Carville, La., is devoted entirely to care and treatment of persons with leprosy. Patients receive complete medical care and full maintenance. Services include not only the special medical, surgical, and dental therapy necessary to treat the disease, but also general medical care. Since the course of treatment at Carville usually spans a period of years, the hospital conducts social service and community activities programs with diversified recreational and educational opportunities.

The sulfone drugs still constitute the "treatment of choice" at Carville. All workers in the field of leprosy agree that these drugs offer a comparatively effective form of therapy. Most sulfone-treated patients enjoy greatly improved general health. In the majority of cases, the irreparable ravages of long-standing leprosy can be avoided if treatment is begun early. Like the onset of the disease, the sulfone drugs work slowly. Therefore, the search for more efficient and quicker-acting specific therapy for leprosy continues.

Admissions to the Carville hospital totaled 59 in 1956, compared with 57 the year before. The average daily census declined from 319 to 313 as patients with "closed" cases left the hospital. Leprosy parallels tuberculosis in that a stage of apparent arrest may be reached, and the patient may enjoy long periods relatively free from disease activity.

Narcotic Addiction.—The hospitals in Lexington, Ky., and Fort Worth, Tex., treat narcotic addicts as defined by Federal law. They also receive mentally ill patients entitled to care as beneficiaries of the Federal Government.

In 1956, the two hospitals admitted 4,767 patients, an increase of 18.5 percent; the average daily census remained virtually changed at 2,010. Most of the patients admitted were narcotic addicts who entered voluntarily. The stability of the average daily census while admissions increased indicates the addicts' weakened capacity for self-control in relationship to narcotics. About 25 percent of voluntary addicts who enter the hospital leave within a week after admission; by the end of a fortnight, 50 percent are gone. This period of hospitalization is hardly long enough for recovery from the acute abstinence syndrome. On the other hand, addict patients sentenced by Federal courts usually stay a year or more. The need persists for a way to require addicts to remain in the hospital until they achieve reasonable recovery from physical dependence on narcotic drugs.

TRAINING MEDICAL CARE PERSONNEL

More than 250 physicians, dentists, pharmacists, and dietitians served internships and residencies in Public Health Service hospitals during the year. Eight of the hospitals had approval for the post-graduate training of physicians granted by the American Medical Association. The American Dental Association approved eight hospitals for dental internships.

Through affiliation with colleges and technical schools, about 100 undergraduates received practical experience and hospital instruction in physical therapy, occupational therapy, vocational therapy, social service, practical nursing, and medical laboratory technology. The Baltimore hospital trained 10 new medical record librarians. The hospital on Staten Island provided the clinical nursing portion of the hospital corpsmen course offered by the U. S. Coast Guard.

CLINICAL INVESTIGATIONS

Twenty formal clinical investigation projects were started under the auspices of a new clinical investigations committee in the Division. In cooperation with a pharmaceutical firm, one hospital began a cost-accounting study of expenses of administering frequently used injectables by the conventional method; this will be followed by an investigation of those costs using the single-dose closed system. In collaboration with the Food and Drug Administration and the American Association of Medical Record Librarians, the Division participated in a study of methods of recording and reporting adverse reaction to drugs.

At Carville, the first conference on leprosy investigations was held to discuss leprosy studies from the standpoints of bacteriology, pathology, immunology, biochemistry, metabolism and nutrition, chemotherapy, epidemiology, and clinical management. Conducted by a Public Health Service interbureau committee, the meeting brought to Louisiana nearly all scientists in the United States engaged in research on leprosy.

FREEDMEN'S HOSPITAL

Freedmen's Hospital, Washington, D. C., is a general hospital with provision for chronic chest diseases. It serves as the clinical teaching arm of the College of Medicine of Howard University. The hospital has a capacity of 320 general medical and surgical beds, 50 bassinets, and 150 beds in the annex for chronic chest diseases.

In 1956, the hospital admitted 11,638 inpatients, an increase over 1955; daily average census was 366, compared with 378 in 1955. The outpatient service, consisting of 36 organized clinics and including the emergency room recorded an aggregate of 79,430 visits, an increase over 1955.

The School of Nursing had 106 students, and 33 graduates. The hospital was affiliated with the M. M. Washington Vocational School for the training of practical nurses. An inservice training program for professional and nonprofessional nursing personnel was begun.

The hospital provided graduate training for 42 medical residents, 18 medical interns, 4 medical externs, 2 dental interns, and 8 clinical research fellows. To broaden the scope of the program in medical education, an affiliation was established with the Chelsea Soldiers Home in Massachusetts, and plans were made to extend this program to Norfolk Community Hospital in Virginia, and to Denmark Sanatorium, Beard, W. Va.

Ten dietetic interns completed requirements for certification by the American Dietetic Association, which reviewed the program during the year and extended continued accreditation. Sixteen persons participated in training programs in medical technology, pharmacy, hospital administration and social service.

In 1955 a study commission, appointed by the Secretary of Health, Education, and Welfare, surveyed Freedmen's Hospital to determine its future role. The commission recommended transfer to Howard University and the construction of a new general hospital building. Efforts were made in 1956 to implement the commission's recommendations and at the recommendation of the Department, legislation was introduced in Congress to bring about the transfer.

Foreign Quarantine

In spite of smallpox being epidemic in many countries of South America, Asia, and Africa, the United States was free of it for the third consecutive year. This achievement may be attributed in part to the fact that the United States requires persons arriving at ports of entry to present evidence of smallpox vaccination within 3 years.

The northward sweep of yellow fever in Central America continued. In fiscal year 1955 the disease reached the area near San Pedro Sula in northwestern Honduras, not far from the Atlantic coast. While no human cases were reported in Central America in fiscal 1956, infection in monkeys occurred again in Honduras, and the disease crossed the border into Guatemala where infected monkeys were found southeast of Lake Izabal. Bolivia reported 5 cases of yellow fever, with 4 deaths in Caranovi, about 75 miles northeast of La Paz. The last preceding report of cases from this area was in 1947. There was some yellow fever, including fatal cases, in locations in Brazil, Venezuela, and Colombia.

Cholera was quiescent in the Far East until spring, when an epidemic occurred in Calcutta. Case and mortality rates were the highest since 1953; by the end of June the epidemic had tapered off. Only five ports were infected with cholera during the year, a figure comparable to the small number infected in recent years.

For the first time since 1951 a case of human plague was reported in the United States. It occurred in California, where the disease has been endemic in wild rodents. There was an outbreak of pneumonic plague during January in Amherst, Burma, which was checked within the month. An outbreak of plague in Bolivia was associated with a population movement from the highlands to the more productive areas of the lowlands.

INTERNATIONAL TRAFFIC VOLUME

International traffic subject to Public Health Service requirements increased again, as follows: airplanes inspected for quarantine or immigration-medical purposes from 54,759 in 1955 to 56,891 this year; ships inspected from 27,551 to 30,126; arriving persons subject to foreign quarantine regulations from 42,861,862 to 46,993,370; smallpox vaccinations by quarantine officers from 481,190 to 485,967. The number of persons released subject to further medical examination at destination decreased from 17,831 to 9,670; persons detained in isolation at ports decreased from 229 to 3.

MEDICAL EXAMINATIONS

In the Refugee Relief Program of immigration, medical examination services were provided in Austria, Belgium, Denmark, Egypt,

England, France, Germany, Greece, Iran, Italy, Jordan, Kuwait, Lebanon, The Netherlands, Norway, Sweden, Turkey, and the Far East. The number of persons examined abroad increased from 38,928 in 1955 to 92,519 this year. The number of those examined in this country increased from 26,882 to 72,382. There were 1,619 refugees certified, abroad and in the United States, for diseases excludable under the immigration law.

The number of aliens other than refugees examined abroad by Service officers increased from 158,074 in 1955 to 194,736 in 1956. Those examined in this country increased from 1,861,787 to 2,111,237. Most of those examined abroad were prospective immigrants. The majority examined in this country were crew members and temporary visitors; arriving aliens usually receive a brief inspection, with further examination when indicated. There were 4,263 aliens certified, abroad and in the United States, for diseases excludable under the immigration law.

In the farm placement program of recruiting agricultural workers from Mexico, 415,210 laborers were examined, with 10,057 rejections, at 4 migratory centers in Mexico; and 435,332 examinations were made, with 5,757 rejections, at 5 reception centers in California, Arizona, and Texas.

OTHER QUARANTINE ACTIVITIES

Control measures were applied to more than 30,000 aircraft and numerous ships and land vehicles arriving from other countries to kill mosquitoes and related carriers of disease.

Because of the northward movement of the yellow fever virus, the Division and other interested units of the Service considered plans for controlling *Aedes aegypti*, the yellow fever mosquito prevalent in the southern part of the United States.

In two instances larvae of *Culex quinquefasciatus* Say mosquitoes, chiefly a pest form, were found alive in water in old tires brought to Miami, Fla., from South America in cargo planes, illustrating how insects that may transmit disease can be introduced unless preventive measures are taken.

Nearly 580,000 copies of the International Certificates of Vaccination form were issued to clerks of court, passport agencies, and health departments; this was an increase of 33 percent over the number issued in 1955. In addition, 968,013 copies were sold by the Superintendent of Documents—double the sales for the previous year.

Foreign quarantine regulations were amended to apply the rabies immunization requirement to dogs brought in from Canada, and the physical inspection requirement to both dogs and cats brought in from Canada. This change was made because of the presence of rabies in animals in Canada.

During the year, a technical advisory committee to the Division of Foreign Quarantine was established. Composed of leaders in public health and medicine, this group will help insure that the most effective means are used to prevent introduction of disease by the increasing volume of international traffic. A subcommittee on tuberculosis will assist in determining when prospective immigrants with a history of confirmed or suspected tuberculosis may be considered free of the disease under the immigration law, which denies admission to aliens with tuberculosis in any form.

Hospital and Medical Facilities

The Division of Hospital and Medical Facilities administers the Hospital and Medical Facilities Survey and Construction program. The legislation of 1946 authorizing this program was amended in 1954 to include earmarked Federal aid for the construction of hospitals for the chronically ill and impaired; nursing homes; diagnostic centers or diagnostic and treatment centers; and rehabilitation facilities. The appropriation for construction grants of all types in 1956 was \$96 million, including \$21 million for the new phase of the program. Shortly after the close of the fiscal year, Congress extended the program for an additional 2-year period.

The first hospital to be built under this program was completed and opened in October 1948. As of June 1956, 3,047 hospitals, health centers, and related facilities were approved for construction. Of these, 2,050 were completed and rendering community service, and 806 were under construction. The remainder were in the planning and preconstruction stages. Federal aid for these projects amounted to \$781,421,267.

The 3,047 projects will add 133,239 hospital beds, 2,259 nursing home beds, 748 health units, and many related medical facilities to the Nation's resources. Of the beds, 108,955 are in general hospitals; 11,403 are in mental hospitals; 7,010 are in tuberculosis facilities; and 5,871 are in chronic disease facilities. The total cost of these projects is \$2,467 million, toward which the Federal Government contributed \$781 million, and State and local sources \$1,686 million. Two dollars in State and local funds are being spent for every Federal dollar.

Of the 1,031 new general hospitals being built under the program, 549 are in communities that had no hospitals before the program was begun, and 236 are in communities where the only hospital was obsolete or unsuitable. Fifty-four percent of the new facilities are located in communities of less than 5,000 population, and only 12 percent are in cities of more than 50,000.

Fifty-seven percent of the new hospitals have fewer than 50 beds and only 21 percent have 100 beds or more. Among the larger proj-

ects are teaching hospitals approved for intern and residency training. Thus, in addition to meeting rural needs, the program is serving the training needs of larger institutions.

The hospital bed deficit in the Nation is still large. Although this program in 10 years has provided almost 136,000 beds, and nearly twice that amount of hospital construction has been done during the same period without Federal aid, the need for hospital beds is accentuated by an annual population increase exceeding 2.5 million. Also, every year large numbers of hospital beds become obsolete or in need of modernization.

Additional facilities for early diagnosis and treatment of ambulatory patients would reduce the demand for general hospital beds. The aging of the population has intensified the need for facilities for the chronically ill. Twice the average number of hospital care days are required for persons 65 and over. Many patients now in general hospitals could be cared for in nursing homes and chronic disease hospitals at less cost than is possible in the general hospital.

The amendments of 1954 are designed to help meet these needs. By June 30, 1956, all the States had revised and supplemented their State hospital construction plans to include nursing homes, diagnostic centers or diagnostic and treatment centers, chronic disease facilities, and rehabilitation centers; 204 of these projects had been approved at a total estimated cost of \$24,482,910. A 53-bed nursing home in Florence, Ariz., was the first project approved—in July 1955.

Grants for research, experiments, and demonstrations relating to the effective development and utilization of hospital facilities, services and resources were authorized by Congress in 1949. The 1956 appropriation was the first to include funds to implement this research program, in the amount of \$1.2 million. Twenty-seven research grants for hospital services were approved during the fiscal year.

Health Services for Indians

Fiscal year 1956 was the first year the Public Health Service had complete responsibility for the Federal Government's Indian health program. Personnel and facilities were expanded to meet more fully the backlog of accumulated needs of the increasing Indian population. The Division of Indian Health administers this program.

The Public Health Service provides medical care and preventive health services for some 315,000 Indians living mainly on reservations, and 35,000 Indians, Aleuts, and Eskimos in the native villages of Alaska. Most of these groups are thinly spread over vast sparsely settled areas, generally lacking adequate facilities for transportation and communication. This dispersion and isolation, and the absence

of well developed community health resources, are major obstacles in providing health services for Indians and Alaska Natives.

Although the health of the Indians has been undergoing gradual improvement in recent years, it still contrasts sharply with that of the general population. The average age at time of death among Indians is only 39, compared with 60 for the population as a whole. A third of the deaths among Indians occur before the fifth year of life, whereas only 8 percent of the deaths in the general population are in this age group. The Indian death rate from influenza and pneumonia is nearly 4 times that of the general population. The death rate from tuberculosis is 5 times greater, and from enteric diseases 10 times greater, than corresponding death rates in the population as a whole.

In carrying out its responsibilities for Indian health, the Public Health Service encourages self-reliance and independence on the part of the Indian people, and seeks their participation in planning health activities. It endeavors to give full consideration to the customs and traditions of each tribe or group. The Indians are assisted in making use of State and local services of health, vocational rehabilitation, and crippled children's agencies.

In fiscal 1956, in accordance with a request by the Committee on Appropriations of the House of Representatives, the Public Health Service began a comprehensive survey of Indian health needs and facilities (see p. 92).

To enable the Public Health Service to obtain the judgment of authorities on Indian affairs, the Surgeon General early in May named an Advisory Committee on Indian Health. This committee, with members representing medicine, science, law, education, journalism, and the Indian peoples, is aiding in the development of policies to improve health services to the Indians.

The health program provides both curative medical care through hospital and clinic services, and public health services to promote health and prevent disease. The two major phases of the program are equal in importance and, for the most part, fully integrated. Preventive activities are provided in all Indian health facilities, and treatment is administered at many field installations. Increases in the number of professional personnel permitted an expansion of services during the fiscal year. The number of physicians on duty with the program, for example, was increased from 121 to 190, and the number of dentists from 46 to 64.

HOSPITAL SERVICES

Hospital services are provided at 48 Public Health Service Indian hospitals and at 8 Alaska Native Health Service hospitals, as well

as at more than 160 non-Federal hospitals under contract to the Public Health Service. The latter include community general hospitals, State and county tuberculosis sanatoriums, and State mental hospitals.

The 56 Public Health Service hospitals operated for Indians and Alaska Natives have a bed capacity of approximately 3,800. Except for 9 large facilities with 100 or more beds, the majority of these hospitals are general facilities of 25 to 35 beds. There are provisions for 1,800 beds in the contract hospitals, two-thirds of which are for patients with tuberculosis.

Patient loads in all hospitals increased. The average daily patient census in the 48 Indian hospitals increased by 4 percent, and that of the Alaska Native Health Service hospitals increased by more than 7 percent. The average daily patient census in contract general hospitals within the United States was almost twice that of 1955.

The combined daily patient census for all hospitals—both Public Health Service and contract—was approximately 4,200. Of these patients, about 1,300 are Alaska Natives.

Therapeutic and preventive services are provided at outpatient clinics in all Indian hospitals. Outpatient treatments and preventive services at Indian and Alaska Native Health Service hospitals increased by 15 percent during the year.

The most significant development in the Indian hospitals was the increase in their medical and supporting staffs. Nearly all the smaller hospitals now have at least two medical officers. Food service, maintenance, administration, and other functions were also improved. Another significant development was the inauguration of a system whereby the larger medical centers provide supportive services for the smaller outlying hospitals. Higher standards and greater efficiency are being achieved through centralizing some of the functions of the pharmacy, medical records, and dietetic services.

FIELD HEALTH SERVICES

More than half of the deaths and most of the illness among Indians are caused by diseases that can be prevented or controlled. These facts suggest that preventive health services are the key to the greatest improvement in Indian health. Consequently, the Public Health Service is intensifying efforts to work with Indians in their own communities to help apply modern knowledge of sanitation, diet, health habits, and other aspects of disease prevention.

Health education is a major part of this effort. Professional staff members carry on educational work in their day-to-day relations with Indian patients, families, schoolchildren, and community leaders. Health education activities are coordinated by a small staff of health

educators, assisted by a number of college-trained community workers—most of whom are Indians.

It long has been apparent that much illness results from polluted drinking water, insufficient quantities of water available, unsafe practices in the disposal of wastes, improper handling of food, high levels of infestation by insect carriers of disease, and inadequate housing. Emphasis was given to increasing the services of Indian sanitarian aides on reservations and in Indian communities. Working under the sanitary engineering staff in the field, these aides are fostering wider knowledge of sanitation among the Indian people.

One new feature of the Indian health program begun in the Southwest during the year was an extensive effort to control rabies by inoculating dogs on reservations.

Public health nursing services were substantially increased in 1956, and home visits were devoted to health problems of entire families rather than to acute illnesses of individuals. A similar shift of emphasis in public health nursing also occurred at clinics, where greater demands for preventive health services and better acceptance were evident.

Field health services are provided from the Indian and Alaska Native Health Service hospitals, and through a system of some 100 health centers and field clinic installations at more than 100 other locations. Staffs at field health facilities supplement the work of the hospitals by diagnosing, treating minor illnesses, referring cases to hospitals, following up on discharged patients, and conducting case-finding programs. Clinic staffs provide prenatal, maternity and infant, and preschool services; mothers receive instructions and children are immunized and treated for common infections.

Wherever it is advantageous to Indian beneficiaries and the Government, and where the necessary facilities are available, health services are provided by State agencies and private physicians or clinics under contracts monitored by the Division of Indian Health. The Public Health Service now has in effect contracts for such services with about 30 State or local health departments and numerous physicians and dentists. A total of \$7.6 million was spent for contract patient care in 1956, compared with \$5.8 million spent for this purpose in 1955.

DENTAL AND SOCIAL SERVICES

Dental services are provided in hospitals and at other locations in the field. Since 1950, dental services have included preventive and control measures as well as treatment. Preventive dentistry now is provided at about 230 locations, with particular attention to school age children.

During 1956, greater emphasis was placed on restorative dentistry, but extractions continued to constitute a substantial portion of the total dental services rendered. Topical fluoride treatment was brought to additional communities, and to larger numbers of school children than ever before.

A total of 118 man-years was devoted to the dental health program in hospitals and field installations. The dental staff comprised an average of 60 dental officers, 44 dental assistants, 4 dental laboratory technicians, and 10 persons engaged in dental educational and preventive activities. Dental officers were increased by 20 and auxiliary dental personnel by 26 over 1955.

Medical social work services to Indians were nearly doubled during 1956, with the addition of 10 medical social workers to the staff. In 1955, nearly all of the medical social workers in the Indian health program were stationed at tuberculosis hospitals. During 1956, however, medical social service was extended to general patients. Since the assignment of medical social workers to the six Indian health area offices, consultative services have been provided to contract hospitals and additional services obtained for Indians through arrangements with community social agencies.

TUBERCULOSIS CONTROL

Control of tuberculosis among Indians and Alaska Natives is an effort that concerns both the hospital and the field health staffs. The Indian death rate from this disease is 5 times that of the United States population as a whole. The tuberculosis problem is particularly serious in Alaska, where the mortality rate is 5 times that of the rate for Indians within the continental limits of the United States.

A chemotherapy program to control tuberculosis in Alaska was begun in 1954, and was substantially expanded in 1956. Ten chemotherapy nurses now cover more than 70 native villages in western Alaska. These nurses dispense medications, train chemotherapy aides to assist them in the village clinics, visit patients, follow up with tuberculin testing, and find new cases. This program has nearly eliminated the backlog of tuberculous patients awaiting hospitalization.

Contracts are in effect with several State agencies for tuberculosis case-finding, treatment, and followup activities. This is in keeping with Public Health Service policy to work closely with State health departments on Indian health matters, and to use State and local resources whenever possible.

In research, Cornell University is conducting a study for the Public Health Service to determine clinical effects of new chemotherapeutic agents used in controlling tuberculosis among Indian patients. The University of Pennsylvania is conducting research among the United

Pueblo Indians to determine the effectiveness of using antibiotic drugs to prevent development of tuberculosis in children.

TRAINING OF INDIANS

To meet the needs in Indian and Alaska Health Service hospitals for practical nurses, the Public Health Service operates practical nurse schools at Albuquerque, N. Mex., and Mount Edgecumbe, Alaska. Sanitarian aides are given special orientation training courses conducted at Phoenix, Ariz., and in Alaska, after which they return to their reservations or villages. Dental assistants and dental technicians are being trained and employed, and plans were made in 1956 to establish another training facility for dental technicians beginning in 1957. Community health workers receive on-the-job training supervised by schools of public health under contract. Approximately 90 Indians were trained by the Public Health Service during the year for employment in these occupations in the Indian health program.

CONSTRUCTION AND RENOVATION

Congress appropriated \$5 million for the construction and renovation of Indian health facilities in 1956. Four new general hospitals were authorized, and nearly \$2 million of the funds was allocated for the construction of one facility and the planning of the other three. A site was selected for a 75-bed hospital at Shiprock, N. Mex., and preliminary plans were drawn up. Sites were under consideration for 50-bed hospitals at Sells, Ariz., and at Kotzebue, Alaska. Preliminary plans were drawn for a 200-bed medical center at Gallup, N. Mex., which will be a referral hospital for some 80,000 Navajos and other Indians in that area.

Preliminary plans were made for the conversion and renovation of 4 existing clinics on the Navajo reservation, and bids were received for the construction of 5 new ones. A site was selected for the construction of the Santa Rosa clinic to serve the Papagos in Arizona. In the Aberdeen, S. Dak., area, program plans were completed for the construction of 6 health stations and clinics. Major alteration projects were started at the Phoenix, Ariz., medical center and at the Tuba City, Ariz., hospital.

To overcome a serious housing shortage for health personnel, more than \$2 million was used for construction of permanent housing in Alaska at Bethel, Barrow, and Tanana, and for the relocation of some 325 surplus Government housing units in the United States. By the end of the year, 250 housing units from Camp Pickett, Va., had been dismantled, and about 200 had been moved to locations in the South-

west. Relocated in the Northwest and North Central States were 50 housing units and 25 trailers.

Dental Resources

Major program emphasis of the Division of Dental Resources continued to be in the field of dental manpower. Studies of supply, utilization, and distribution of dentists and dental auxiliary personnel were the principal activities. The Division was also active in studies relating to voluntary prepayment dental care.

DENTAL MANPOWER

A study of the characteristics, finances, and practice plans of dental and dental hygiene students, begun in 1954 by the Division and the American Dental Association, was completed. It provides comprehensive information on the expenditures of dental students as well as facts on the personal and family characteristics of students and their plans for location of practice.

A study of dental manpower requirements in the 11 Western States, Alaska and Hawaii, initiated in 1955 in cooperation with the Western Interstate Commission for Higher Education, was carried on with the assistance of the American Dental Association and the W. K. Kellogg Foundation. Its primary purpose was to determine needs for additional dental training facilities in the West. The collection of data was completed, an analysis was made, and arrangements were made for publication in fiscal 1957.

The cooperative study by the Division and the American Dental Hygienists' Association of supply, characteristics and distribution of dental hygienists, begun in 1954, was continued. This will be published as "Health Manpower Source Book, Section 8: Dental Hygienists," providing a source of information not previously available.

PREPAYMENT DENTAL CARE

Two projects relating to prepayment for dental services were completed. The first was an evaluation of the predictability of dental treatment needs in adults by developing data collected in an earlier study of time and service requirements in a group service program. The second was an assessment of some of the possible effects of community water fluoridation on a dental care prepayment program for children by applying a fixed fee schedule to services rendered in selected counties that have fluoridation and counties that do not have it.

Information on all existing dental prepayment programs was catalogued. A comprehensive study of one of these programs, that of the St. Louis Labor Health Institute, was begun.

Nursing Resources

The Division of Nursing Resources is a focal point in national efforts to augment the nurse supply. The Division assists States, hospitals and local groups to analyze problems of nursing services and to take action to improve the nursing care given patients. The work of the Division was expanded in fiscal year 1956.

NEW RESEARCH GRANTS PROGRAM

For the first time Public Health Service aid for medical and scientific studies included grants and fellowships specifically for nursing research. The new program was carried on cooperatively by the Division of Nursing Resources and the National Institutes of Health. An appropriation of \$625,000 was made for the year. The National Advisory Health Council approved 20 grants, totaling \$496,176, for studies in problems of nursing service and the needs of patients, the selection of nursing as a career, the development of leadership qualities in nurses, and refinement of the basic curriculum in schools of nursing. In addition, \$124,578 was awarded to nurses for graduate training in research methods. This amount provided 27 full-time fellowships and 62 part-time fellowships in 16 schools of nursing.

STATE SURVEYS OF NURSING NEEDS

The Division published "Design for Statewide Nursing Surveys: A Basis for Action," a manual to help States and institutions analyze and improve their nursing resources. In the past 7 years the Division has assisted 38 States in surveying nurse supply and planning remedial programs. States that have made changes on the basis of these surveys are reporting success in improving nursing services and in providing more care for patients. These surveys have increased in scope. Special studies, such as nurse utilization and job satisfaction, are now being undertaken in addition to general appraisal of needs.

BETTER METHODS OF PATIENT CARE

As part of an extensive program to determine how best to utilize the present supply of nursing personnel, the Division, in cooperation with the American Hospital Association, conducted a study of patient care in 60 hospitals in 7 States. The study was designed to find out to what extent satisfaction with nursing care is related to the number of hours of care provided. The procedures and questionnaires used were developed following an experimental study in hospitals in Cleveland, Ohio. Preliminary findings indicate that the shortage of nurses may be related to other factors, as well as numbers.

The Division has developed methods to aid hospitals in better utilization of nursing personnel. To date 113 hospitals in 14 different States have been helped through self-improvement demonstrations. More than a million and a half patients will benefit in a single year from the changes being made in management and personnel policies, including relieving nurses of jobs other types of personnel can do, streamlining recordkeeping systems and methods of dispensing drugs, and revising ward routines.

The Division works closely with organizations such as the American Nurses' Association, the National League for Nursing, and the American Hospital Association in developing programs concerned with recruitment and utilization of nurses. One program is the training of nursing aides, carried on jointly with the League and the American Hospital Association. In 2 years, more than 75,000 nursing aides in 1,350 institutions, including nursing homes, have received this training.

Medical Services for Federal Agencies

The Public Health Service is responsible for providing medical services to certain other Federal agencies. Through the Bureau of Medical Services, medical, dental psychiatric, nursing, and other personnel are assigned on a reimbursable basis to agencies that request assistance in operating their medical programs.

OFFICE OF VOCATIONAL REHABILITATION

During the past year, 7 commissioned officers (3 physicians, a dentist, nurse, physical therapist, and sanitarian) were detailed by the Service to the Office of Vocational Rehabilitation. These officers had important roles in various phases of the State-Federal rehabilitation program. Their responsibilities included technical assistance to State vocational rehabilitation agencies; administration of an expanded training program for physicians, nurses, physical therapists, and occupational therapists; consultation to voluntary agencies and medical schools on the design of research and demonstration programs, as well as on the development and expansion of rehabilitation services. Details regarding these activities may be found in the section of this report devoted to the Office of Vocational Rehabilitation.

BUREAU OF EMPLOYEES' COMPENSATION, DEPARTMENT OF LABOR

Medical care, compensation for wage loss, and rehabilitation services are provided to Federal civilian employees by the Bureau of Employees' Compensation for injuries in performance of duty and diseases attributable to conditions of employment. Facilities of the Public Health Service are utilized for the medical care program

where possible; facilities of other Federal establishments are also utilized where available. In addition, approximately 3,000 physicians in private practice are designated by the Bureau to furnish medical care under the Federal Employees' Compensation Act.

Medical officers of the Public Health Service administer the medical care program and serve as technical advisors to the Bureau. They also assist in the rehabilitation program, staff educational activities, identification of special problems in industrial health, and liaison with employing establishments in the safety program.

Special studies are made of conditions of obscure etiology and conditions suspected to have occupational origin. In 1956 special attention was given to hearing loss at a military proving ground and to cases of tuberculosis among employees of Federal hospitals. Rehabilitation of injured employees through vocational rehabilitation agencies was extended during the year. Many patients were cared for through cooperative arrangements with State vocational rehabilitation agencies.

MARITIME ADMINISTRATION, DEPARTMENT OF COMMERCE

The Public Health Service assisted the Office of Seamen's Services with the review and release of clinical information from the medical records in custody of the Maritime Administration and supplied medical and dental staff for outpatient and inpatient care at the Patten Hospital, U. S. Merchant Marine Academy, Kings Point, N. Y. The Service staff at Kings Point consisted of the chief medical officer of the Academy and three dentists.

UNITED STATES COAST GUARD, TREASURY DEPARTMENT

Ninety-two Public Health Service officers were on duty with the Coast Guard at the close of the year. There were 37 medical officers, 45 dental officers, 8 nurses, a sanitary engineer, and a scientist. Medical officers were assigned to ocean vessels; both a medical officer and a dental officer were assigned to the vessel engaged in the Bering Sea Patrol.

Considerable progress was made in improving dental facilities within the Coast Guard and obtaining new equipment, thus making possible an increase in dental services given. The sanitary engineering program, begun in 1954, was maintained with good results.

FOREIGN SERVICE, DEPARTMENT OF STATE

Existing health units in New Delhi, India; Baghdad, Iraq; and Kabul, Afghanistan, were expanded by the addition of a doctor. Positions were established and doctors have been selected for Vientiane, Laos. New health units with nurses in charge were approved for Seoul, Korea; Rio de Janeiro, Brazil; and Amman, Jordan; and

La Paz, Bolivia. A new unit with a physician in charge was established in Katmandu, Nepal.

The Medical Director visited 20 countries and 23 posts during the year; in general, the medical as well as the sanitary and living conditions have improved greatly during the last 5 years.

Poliomyelitis vaccine was distributed to all Foreign Service posts which do not receive medical services from the Department of Defense. All children of eligible ages and pregnant women were given injections. Arrangements were made for Foreign Service posts to pay emergency medical expenses of local employees injured in performance of duty; reimbursement is then obtained from the Bureau of Employees' Compensation.

The Foreign Service Act of 1946 was amended to authorize medical care for dependents, with certain limitations; medical travel when local medical facilities are inadequate; examination of dependents of applicants; and increased medical facilities at Foreign Service posts. This program will be implemented in fiscal year 1957.

BUREAU OF PRISONS, DEPARTMENT OF JUSTICE

The Public Health Service has provided medical and related services for prisoners in Federal penal and correctional institutions for 26 years. Today, the medical staffs not only provide general medical care, but also participate in rehabilitating prisoners to return to society. Medical personnel serve as instructors in correctional officer programs; participate in classification meetings where programs are developed; advise on disciplinary problems, especially where neurotic or emotional problems exist; and participate in other aspects of administration.

In 1956 over 41,000 persons in 28 institutions in 23 States were provided with care. There were 13,818 admissions to the hospitals for a total of 439,608 hospital relief days; 953 major and 4,910 minor operations were performed. Outpatient departments provided 818,176 treatments and performed 25,991 routine physical examinations.

A number of research projects were conducted at various penal institutions. These included: development of new psychological tests; study to learn how and why youthful delinquents form cliques or gangs; experimental work with d-lysergic acid and possible antidotes; chloriquinized salt in malaria control; rates of absorption and excretion of DDT; study of an attenuated vaccine for poliomyelitis; and a study of effects of industrial noises on hearing.

BUREAU OF OLD-AGE AND SURVIVORS INSURANCE, SOCIAL SECURITY ADMINISTRATION

A Public Health Service officer served as chief medical consultant to the Division of Disability Operations of the Bureau. His work

included advising on development of medical policies and guides to determination of disability; conduct of a medical training program for central and field office personnel, including the referees of the Appeals Council; and the recruitment, training, and supervision of a medical staff for evaluation of medical impairments. He attended several medical conferences to familiarize physicians with the administration of the disability insurance program.

BUREAU OF PUBLIC ASSISTANCE, SOCIAL SECURITY ADMINISTRATION

A Public Health Service officer served as the Bureau's medical consultant. Much of his work was in connection with the program of aid to the permanently and totally disabled in which 45 States are providing assistance. In field consultations on medical aspects of this program, attention was given to strengthening the working relationships between public assistance agencies and State health departments.

Bureau of State Services

The Bureau of State Services is the principal unit through which the Public Health Service carries out its programs in disease control and in the improvement of public health services. It provides assistance to State and Territorial health agencies and administers the health aspects of international programs involving the United States. The Bureau also cooperates with voluntary health agencies and professional organizations in encouraging widespread application of existing knowledge about the prevention and control of disease.

General Health Services

The programs administered by the Division of General Health Services are: State grants, program development, public health education, public health nursing, the National Office of Vital Statistics, the Arctic Health Research Center, and emergency health services (civil defense). One of the major activities of fiscal year 1956 was the administration of the poliomyelitis vaccine program.

POLIOMYELITIS VACCINE PROGRAM

To assure an equitable distribution of poliomyelitis vaccine while it was in short supply, States and manufacturers cooperated with the Public Health Service in an allocation program which allowed each State a proportion of each new supply of vaccine corresponding to the proportion of persons in the priority groups which were set by the National Advisory Committee on Poliomyelitis Vaccine. Initially,

priority was limited to children 5-9 years of age, but the group was gradually expanded until it included all children under 20 and pregnant women. The Division administered the allocation system, notifying the manufacturers of the distribution among the States of each lot of new vaccine released and notifying each State of its allotment.

On August 12, 1955, Congress enacted the Poliomyelitis Vaccination Assistance Act—patterned after legislation recommended by the administration—authorizing Federal grants-in-aid for the purchase of poliomyelitis vaccine and the administration of vaccination programs. In February 1956, the act was extended to June 30, 1957, and additional funds were appropriated. All States and Territories applied for grants and submitted plans which were approved after they were reviewed for conformity with the requirements of the Federal law and regulations.

Policies for export of vaccine, for limited purposes, were worked out in cooperation with the Department of Commerce and the Department of State. Cooperation was also given to the National Foundation for Infantile Paralysis in its program of promoting widespread domestic use of the vaccine.

STATE GRANTS

Federal funds available for grants-in-aid to States for health programs totaled \$194,538,000 in fiscal year 1956. This amount included \$109,800,000 for hospital and medical facilities construction and \$53,600,000 for poliomyelitis vaccination programs. The following breakdown shows amounts and purposes for which actual payments were made:

General health services.....	¹ \$13, 332, 038
Venereal disease special projects.....	² 1, 187, 906
Tuberculosis control.....	4, 488, 026
Mental health activities.....	2, 980, 547
Cancer control.....	2, 217, 825
Heart disease control.....	1, 088, 061
Medical facilities survey and planning.....	287, 064
Construction of community facilities.....	647, 240
Hospital construction.....	54, 372, 562
Poliomyelitis vaccine assistance.....	24, 358, 678

¹ Includes \$3,607,160 earmarked for distribution and use of poliomyelitis vaccine.

² Includes \$195,347 in services and supplies furnished in lieu of cash.

Table 4, page 158, shows the distribution of these sums by State. State appropriations available to health departments, exclusive of those for the operation of sanatoriums and general hospitals and construction, amounted to \$134,542,853. This was an increase of about 10 percent over the preceding year.

A comparative study of 1955 and 1950 expenditures by full-time local health units was initiated during the year; the purpose was to determine current trends in different areas and in different types of units. Technical assistance and consultation were given to States on budgeting, accounting, and other management and fiscal problems by specialists in the Division.

PROGRAM DEVELOPMENT

A special branch was established in the Division to explore and make preliminary plans relating to new public health programs. This first year, it served as a focal point for Service activities in migratory labor, rural health, and school health.

In cooperation with the Children's Bureau and other units of the Department, a uniform health record for migrant families has been developed for testing and eventual use in States where large numbers of migrant workers are employed. Two guides to health services for migrants were developed and distributed, one for 10 East Coast States, and one for 12 Western States. Work also progressed on the development of uniform standards for farm labor camps, on a suggested State code for the transportation of migrant workers, and on a summary of tax advantages which accrue to employers when health, education, and welfare services are made available to migrants.

Reports were prepared on the relationships of public health agencies to the rural development program of the Department of Agriculture. In cooperation with the Office of Education, Children's Bureau and other units of the Department, State plans for school health programs were reviewed and analyzed.

PUBLIC HEALTH EDUCATION

Through research, training, and consultation, the health education staff assists other units of the Public Health Service, State health departments, educational institutions, and other organizations in developing health education programs that will influence health habits.

Research included a study of health improvements that resulted from having a professional health educator on the staff of a teacher education institution; an evaluation of a public health fair which is held annually in a large city; a study of the health education aspects of a community's reaction to a flood disaster. In cooperation with other programs in the Bureau, the research staff identified behavioral factors which are significant in planning tuberculosis, heart disease, and other control programs.

Training activities in the health education field included work with schools of public health in improving curricula; lectures in schools of medicine; and assistance in training health educators for service in foreign countries.

Consultation was given to 14 States and to 6 foreign countries. In addition, health education consultants stationed in 4 regional offices gave continuing consultation and technical assistance to States in their areas.

PUBLIC HEALTH NURSING

With the trend toward home care programs for the chronically ill, health agencies are placing increasing emphasis on the development of sound public health nursing programs. This is reflected in the extensive consultation work carried on by the PHS nurses this year. Aid was given to the California Health Department in developing a base for determining the number of nurses needed in local health departments and in designing studies of public health nursing services in special programs. The North Carolina Health Department was assisted in planning a 4-day workshop on consultation. Washington, Texas, Maryland, New York, Michigan, and Florida were also aided through special training programs.

A field study designed to establish a baseline for measuring the utilization of public health nursing services to patients was conducted in 8 local health departments. A formula for determining public health nurse staffing patterns and units of work is being developed to provide a simplified method of interpreting budget needs and to guide appropriating bodies, management firms and other surveyors in their attempts to quantitate health department services.

An annual census of nurses employed in public health activities during 1955 was compiled. It revealed that, of the 27,112 nurses employed by public health agencies and boards of education, 37 percent had completed one or more years of academic study in public health nursing. Forty-four percent of the more than 27,000 were employed by local official health agencies, practically the same number as in 1950. The number of nurses employed by boards of education for school nursing increased by more than 30 percent during the same period.

VITAL STATISTICS

The National Office of Vital Statistics works closely with State health agencies to compile the national statistics on births, deaths, marriages, divorces, and communicable diseases. This includes routine reporting of the numbers of new cases and epidemiologic information on unusual occurrences of diseases. Such data provide a current basis for planning programs in public health, social welfare, education, defense, business and market analysis, and in medical and demographic research. The Office also cooperates with the World Health Organization and its member countries to develop comparable international statistics.

Coordination and improvement of the vital statistics system are effected mainly through the Public Health Conference on Records and Statistics. The year's achievements included: completion of a draft of the Model State Vital Statistics Law; final criteria for admitting States to proposed marriage and divorce registration areas; a standard form of reporting adoptions and a standard form to permit movement of a body for burial; a recommended definition of prenatal mortality rates; and a guide for using service statistics in home accident programs.

The National Office consulted with and gave direct assistance to several States in surveying statistical operations, developing new or improved procedures, and clearing up backlogs of unprocessed records. It also conducted regional institutes for State personnel.

The most notable achievement in processing vital statistics was the publication of the NOVS annual statistical report for 1954 ahead of schedule. Besides the routine weekly, monthly, and annual publications, NOVS issued many special reports, including 48 State reports on life expectancy, a study of economic characteristics of recently married persons, the first 12 of 31 reports on selected causes of death during 1900-53, and a study of the relation of birth weight to causes of death in the neonatal period.

Revisions of the Standard Certificates of Live Birth and of Death were distributed and recommended for State adoption.

ARCTIC HEALTH RESEARCH CENTER

Epidemiologic studies constitute an important part of the program of this Center. House-to-house surveys in several native villages have been made in connection with enteric disease studies. New evidence has been acquired indicating that small mammals may be an important factor in the epidemiology of trichinosis in Alaska. Three additional species of fish tapeworm have been discovered and other data offering valuable clues to the control of this health problem have been compiled.

A study of diabetes in Alaskan Eskimos was completed. The disease is extremely rare among Eskimos, but it is not yet known whether this is due to heredity or to nutritional factors. If it is the latter, increased prevalence can be expected due to the increasing use of nonnative foods.

Home treatment for tuberculosis was begun for over 1,200 Alaskans in 66 villages, and mass X-ray surveys of villages are in progress.

With the help of villagers, Center staff constructed the first experimental well ever developed in a permafrost area. This was part of an experimental sanitation program carried out in a few isolated villages to demonstrate and test the practicability of developing water

supply and sewage disposal systems in permafrost areas. Winter operations are being carefully watched to determine needed modifications of design or operation.

EMERGENCY HEALTH SERVICES

The emergency health services staff coordinates Bureau activities in civil defense and disaster relief and gives leadership in the development, improvement, and continuity of regional, State, and local public health civil defense plans and organizations. The staff developed the Bureau emergency plan which was adopted for use during Operation Alert 1956.

The general inadequacy of existing civil defense programs in the States is a matter of serious concern. During the year, information covering the activities and organizational responsibilities of the States for civil defense was analyzed and distributed to health officers and others concerned. Consultation and training were provided by headquarters and regional staff and the PHS field centers.

Disaster relief functions during the year were concerned primarily with damages caused by hurricanes in the East and floods in Oregon, Washington, and California. A critique covering Public Health Service emergency operations following the disasters was prepared, and recommendations were made concerning the development and improvement of memoranda of understanding with other national agencies, a personnel readiness program, a PHS disaster aid plan, and a PHS regional disaster plan.

Division of Special Health Services

The Division of Special Health Services is concerned with the problems of personal health maintenance and the development and application of improved health maintenance and preventive techniques. Through demonstration, training, research, and consultation, the Division works closely with health agencies at all levels and assists in the establishment and extension of programs in adult health services, and chronic disease, heart disease, occupational health, medical aspects of air pollution, tuberculosis, and venereal disease.

CHRONIC DISEASE PROGRAM

This unit conducts continuous studies to establish and maintain current estimates of the size and characteristics of the chronic disease problem in terms of incidence and prevalence of disability, death from various chronic diseases, and needs for service by the chronically ill. These studies indicate that there are now about 2.5 million persons with long term disabilities who are not amenable to vocational rehabilitation.

To help States meet some of the health needs of this group, the Chronic Disease Program, in cooperation with the State and Territorial Health Officers Association, sponsored a seminar in September, 1955. The meeting brought together for the first time representatives from all State health departments to exchange ideas, and establish principles and patterns for State and local activities in chronic disease prevention and control.

The need for more emphasis on chronic disease in the curricula of schools of public health was recognized and consultations were held with faculty members of the major schools. Members of the program staff also served as guest lecturers.

Six training courses in public health diabetes programs were given for regional, State, and local public health staffs.

Three basic studies are under way to determine the social and medical needs of the chronically ill. One is a nursing home study, in St. Louis, Mo.; one is a study of rehabilitation services for the aged, in the New York City hospital system; and the third is a study on patient education, at Denver General Hospital.

Special emphasis continued to be given to the problems of diabetes prevention, detection, and control. A long range study is in progress to determine whether insulin given during pregnancy will prevent or delay the occurrence of the disease in diabetes-prone mothers and their offspring. Numerous studies, designed to develop increasingly effective mass screening techniques for the early detection of diabetes, are also in progress. At present, it is estimated that at least half the persons suffering from diabetes do not know they have the disease and are receiving no treatment.

In cooperation with the National Society for the Prevention of Blindness, the Chronic Disease Program is working on the development of effective mass screening techniques for the early detection of glaucoma.

HEART DISEASE CONTROL PROGRAM

To assist States in reducing deaths and illness from heart disease, the Heart Disease Control Program carries on three major activities: operational research, training programs, and consultative activities.

A study by the California State Health Department with the support of the Heart Program provided data on the mortality experience of 577 elderly persons whose nutritional status was assessed by history and laboratory methods 5 years previously. Findings indicated that the serum cholesterol was not prognostic of coronary diseases in this group. There was, however, an association of vitamin C deficiency by history and low serum vitamin levels with increased mortality from subsequent coronary disease.

Other studies of the relationship of animal fat in the diet as related to serum cholesterol levels were carried on in a group in Boston. A study was also initiated in the Washington, D. C., area to assess the severity of atherosclerosis in a group whose diet is largely vegetarian.

The relationship of obesity as contrasted with overweight due to body build was studied to determine which of these is a more important factor in the excess mortality from heart disease.

The use of the mass X-ray programs for detection of heart disease was studied further. Findings to date indicate that with appropriate criteria the X-ray chest films should be able to detect approximately 20 percent of all diagnosable heart disease.

Geographic patterns in mortality in the United States and various parts of the world are being studied. Mortality rates for coronary heart disease were twice as high in some areas of this country as in others. Differences among States appear to be as large and real as differences observed among countries.

An epidemiological study of census tract mortality data conducted in Chicago has yielded the following preliminary observations: laborers have more coronary disease than executives; low income families more than high income families; housewives more than working women. Further study will be necessary before these findings can be confirmed.

A pilot center was established at the University of Minnesota School of Public Health to provide 3 months of intensive training in cardiovascular disease to nurse consultants, supervisors, and instructors from all fields of nursing. Plans for a similar training center at another university are in progress.

Several State health departments have set up training programs, either in cooperation with existing courses in schools and universities, or as on-the-job training. Extensive training activities were also conducted among social workers, many of whom deal with heart disease patients in welfare agencies and in hospitals.

Consultative services were given by physicians, nurses, social workers, and nutritionists to State and local health departments and to voluntary agencies and professional groups. Cooperation of health departments in the "Stop Rheumatic Fever" campaign of the American Heart Association was encouraged and supplementary material on the campaign was prepared for physicians and the public.

OCCUPATIONAL HEALTH PROGRAM

The continuing efforts of medical, engineering, and other occupational health specialists to protect and improve the health of the Nation's working force achieved new scope during the year.

With the establishment of a pilot program in agricultural preventive medicine, a first step was taken to apply to agricultural workers the protective measures available to industrial workers. The project is being conducted cooperatively with the South Dakota Department of Health and is designed to develop basic information that can be applied by other health departments.

A beginning was also made toward the development of critically needed information on the long-term effects of low-level exposures of workers to radioactive substances. Lack of such knowledge has been the principal deterrent to the use of atomic energy for peaceful purposes. To develop the necessary clinical data, a radiological health research program was instituted during the year.

In the area of adult health maintenance, a study was made of the attitudes of industrial executives toward preventive health services for employees. The results will be used in demonstration projects to encourage the expansion of privately financed preventive services in industry.

A new experimental approach in preventive industrial toxicology holds promise for the development of new tests for overexposure or early diagnosis of occupational disease before the exposed individual has any signs or symptoms. Other research conducted during the year involved studies of pneumoconiosis in the diatomite-producing industry; the prevalence of silicosis in the United States; industrial toxicology; effects of noise and vibration; and various other industrial health problems, including the control of radon and radon daughters in uranium mines.

AIR POLLUTION MEDICAL PROGRAM

This unit conducts and helps support studies designed to discover more about the relationship between air pollution and human health. Studies initiated during the year include analyses of geographical patterns of causes of death; possible relationship of different types and degrees of air pollution to the medical impairments of persons breathing such air; studies of the toxic effects of air pollutants on laboratory animals; and various analyses of the toxicology of common air pollutants upon human blood tissues and enzyme systems. Limited consultative services were provided to help State and local health departments appraise and cope with air pollution as a health problem.

TUBERCULOSIS PROGRAM

The principal objectives of the Tuberculosis Program are: (a) the removal of tuberculosis as a cause of death; (b) the prevention of illness from tuberculosis; and (c) the prevention of the spread of tubercle bacilli from infected to uninfected persons. To achieve these objectives, the following activities are carried on: (1) re-

search, (2) promotion of casefinding among population groups at high risk, (3) establishment of standards for home care and case management, (4) measurement of the extent of the tuberculosis problem, (5) provision of technical information and health education services and (6) financial assistance to States to strengthen State and local programs.

National data on the tuberculosis problem reveal a continued decline in morbidity and mortality rates. In 1954, the morbidity rate for the continental United States was 48.8 per 100,000 as compared to 46.4 for 1955; and the mortality rate dropped from 10.2 per 100,000 persons in 1954 to 9.1 in 1955.

A study of nonhospitalized tuberculosis patients was undertaken to ascertain facts which would be helpful in planning future control programs, since, with modern drugs, a considerable number of tuberculosis patients are being treated at home rather than in sanatoriums. The study was based on a sample census of the number and status of nonhospitalized tuberculosis cases for the United States as a whole. It was found that 56 percent of the tuberculosis patients are in hospitals; 44 percent are at home. Of those at home, half are 45 years of age and older; there are twice as many males as females; 87 percent are in advanced stages of disease; almost half left the hospital against medical advice; a third are under care of private physicians; the sputum status of almost half is unknown; 40 percent of the active cases have had neither drugs nor bedrest recommended.

Studies continued on the use of isoniazid as a preventive, and preliminary plans for trials in human beings were explored. The possible value of isoniazid in preventing meningitis and other complications in tuberculous children was the theme of another significant study. Other research dealt with evaluation of drug therapy, and additional projects designed to yield more knowledge about prevention and control.

Cooperative clinical investigations with 26 hospitals throughout the country have gone forward in determining the most effective drug combinations in the treatment of tuberculosis. A study of the characteristics of patients in these hospitals was also completed.

Direct assistance to State and local programs included the loan of more than 40 pieces of X-ray equipment; assistance to hospitals in improving nursing practices to prevent the spread of tuberculosis; consultation services; and review and evaluation of several State and county programs.

VENEREAL DISEASE CONTROL PROGRAM

For the first time since 1947, the number of cases of primary and secondary syphilis reported by State and Territorial health departments in 1956 was greater than in the previous year. This increase

indicates a significant upward departure from the trend previously established. The increase is not due to a sudden resurgence in a few areas; it represents a slowly growing national trend which is not limited by race, sex, or geographic area.

More than 150 interviewers and investigators from the Venereal Disease Program were assigned to State and local health departments this year to assist in venereal disease control programs. Almost 2 million people were examined in clinics and about 16 percent were found to be infected. In addition, over 350,000 people, living in areas or belonging to groups where the incidence of venereal disease is high, were tested in house-to-house campaigns and public testing stations; 30,000 of them were found to be infected.

The problem of venereal disease among migrant workers received increasing attention. During the year, more than 65,000 migrant workers were tested, with 7,300 identified as potentially in need of treatment for syphilis.

In venereal disease research, the most important achievement was the development of the *Treponema pallidum* complement fixation test (TPCF). This technique—which uses a reacting substance made from the organisms that cause syphilis—makes it possible for State and other laboratories to test blood serum more accurately and at about one tenth of the cost of any previously known method. Other research projects included continued studies of syphilis immunology, gonorrhea studies, chancroid studies, and numerous long-term serologic studies.

An outstanding educational project of the year was the International Symposium on Venereal Diseases and the Treponematoses, held in Washington, D. C., May 28–June 1, under the cosponsorship of the Public Health Service and the World Health Organization. Over 800 physicians, scientists, nurses, and other health workers from 54 countries attended.

Training courses were conducted for laboratory personnel, epidemiologists, nurses, and physicians.

Sanitary Engineering Services

The Division of Sanitary Engineering Services cooperates with State and local health departments and other groups on environmental problems associated with water, food, air, and housing.

ROBERT A. TAFT SANITARY ENGINEERING CENTER

A cooperative training program with the Federal Civil Defense Administration was given to Commissioned Reserve Officers. It included courses on radiological health protection, chemical warfare defense, nuclear weapons defense, and water supply and water pollu-

tion decontamination techniques. A highlight of the year was the first organized training presentation on the Division's air-pollution abatement program.

The Center's Chemical Analytical Reference Service provided a comprehensive mechanism for evaluating chemical laboratory methods and raising standards of test performance in its own and other sanitation laboratories.

ENGINEERING RESOURCES

Recruitment of inactive reserve officers in preparation for civil defense emergency was continued. There are now 580 reserve environmental health officers recruited toward an ultimate goal of 1,000.

A total of 14 Commissioned Reserve engineering personnel were mobilized for disaster relief activities in connection with the hurricanes which struck the northeastern part of the country in August, 1955, and with the California floods of January 1956.

Five training courses covering various phases of disaster relief were conducted and were attended by about 80 reserve officers.

MILK AND FOOD SANITATION

Research during the year on the effect of pasteurization on the Q-fever organism showed a need to raise the temperature from 143° to 145° F. for 30 minutes by the vat pasteurization method. State milk authorities and the milk industry were notified of this finding.

Trends in public buying habits have promoted increased emphasis on the sanitation aspects of processing, storing, and distributing pre-cooked and frozen foods. Regulatory measures applicable to automatic vending machines are being developed with the cooperation of the National Automatic Merchandizing Association.

Field work in conjunction with several States on sanitation rating methods should develop standard evaluation procedures which will more accurately reflect the effectiveness of State and local food control programs. Studies are in progress to determine any correlation between the training of food-service personnel and the sanitary ratings of food establishments.

In conjunction with the American Dry Milk Institute and the Universities of Wisconsin and Minnesota, plans were initiated for research on the factors involved in the formation of toxins in dry milk.

WATER SUPPLY AND WATER POLLUTION CONTROL

During the year, the Congress enacted new legislation (P. L. 660) to extend and broaden the water pollution control program. The legislation authorized an expanded program of research and technical assistance, basic data collection, simplified enforcement procedure, grants to State and interstate water pollution control agencies

(provisions recommended by the President), and construction grants for sewage treatment works.

It has been estimated that current annual expenditures of approximately \$230 million for municipal sewage treatment plant construction need to be doubled for each of the next 10 years to eliminate the existing backlog, and provide for obsolescence and expected population growth. A study of municipal pollution trends indicates that to attain a desired level of municipal sewage control, by 1985 all municipal wastes will require secondary treatment, and present techniques will have reached the upper limits of practical treatment.

The President's Committee on Water Resources Policy endorsed the established policy of primary State responsibility for controlling pollution at its source. It recommended that the Federal Government aid the States through research, investigation, and technical assistance. In addition to Federal enforcement of interstate pollution abatement, the Commission recommended that the Federal Government prescribe basic criteria and participate in the planning of long-range programs for pollution abatement.

A compilation of industrial waste research projects in progress during 1955 was made available to interstate agencies.

A study of ground water supplies will help to provide a pattern for similar surveys in large metropolitan areas since underground supplies are not vulnerable to contamination by radioactive fall-out resulting from thermonuclear warfare. This source would provide safe drinking water to evacuated populations.

The Interagency Report of Studies of the Arkansas-White-Red River Basins and the New York-New England Area Survey of Water and Land Resources were transmitted to the Congress. These studies will provide an overall view of the developed and undeveloped resources of the regions covered, for use by Congress and governmental agencies in specific program development.

A Water Facilities Inventory of 570 communities of 25,000 population and over was completed and sent to State health authorities and others for water development planning purposes.

AIR POLLUTION CONTROL ACTIVITIES

Public Law 159, 84th Congress, authorized a comprehensive program of community air pollution research and technical assistance to States, communities, and other organizations.

To date, over 250 requests for technical assistance have been received. Included were requests for surveys, technical information, assistance in developing legislation, and plant studies. All requests were met within the limits of available resources.

Personnel were assigned to the Connecticut State Health Department to help evaluate statewide air pollution problems, and to the

Los Angeles Air Pollution Control District to assist in the conduct of a specialized aerometric survey and oil refinery studies. Another cooperative study was initiated in January 1956, in Louisville-Jefferson County, Kentucky, on the source and character of air pollutants in that area.

A total of 29 research projects were undertaken at the Sanitary Engineering Center. Of these, 11 have been completed, including a revised plan for the operation of the National Air Sampling Network, initial installation and operation of a pilot plant for testing air cleaning apparatus, and field trials of newly designed stack-sampling devices.

RADIOLOGICAL HEALTH

At the request of the Atomic Energy Commission, the Public Health Service set up and equipped a nationwide radiation-surveillance network. At present, 33 stations are recording increases, over normal radiation background, which result from nuclear weapons testing in the United States and other countries. This network provides State health officers with on-the-spot information on local radiation intensities.

During the spring Pacific test series of nuclear devices, PHS officers performed off-site functions for the protection of people located near the Pacific Proving Grounds. At the Nevada test site, personnel supervised radiological safety in connection with nonnuclear tests.

Public health implications of the nuclear power industry were studied, as well as the contemplated widespread industrial use of nuclear energy. Waste disposal, radiation-control techniques, and the development of radiation-protection standards were given attention, in cooperation with several States. Training programs, applicable to civil defense needs at the local level, were provided for physicians and other groups. Requests by State and city health departments for control of radioactive water pollution increased markedly during this period.

GENERAL ENGINEERING ACTIVITIES

Three major shipping companies received the Public Health Service special citation for having attained a Certificate of Sanitation for each of their operating units.

The Public Health Service collaborated with the American Public Works Association in the collection and development of basic data and information in the field of refuse sanitation.

Decontamination procedures were carried out after leakage of live poliomyelitis virus in an air shipment. An amendment to the Interstate Quarantine Regulations is being developed in cooperation with

other interested government agencies, covering the shipment of etiological agents.

Staff personnel helped formulate a resolution, adopted by the Sixth Inter-American Travel Congress, to develop minimum sanitation standards for tourist accommodations throughout the Americas.

As recommended and issued by the President's Committee, minimum standards of housing and environmental sanitation were developed to assist State and local health authorities. Staff consultation was also given on sanitation aspects of mass evacuation, municipal and rural sanitation problems, sanitation in aircraft and the new lightweight trains.

ACCIDENT PREVENTION AND HYGIENE OF HOUSING

Plans are now under way to broaden the accident prevention activities of the Public Health Service. One of the purposes is to apply the public health techniques which have been found effective in home accident prevention to the total accident problem.

There was an increased number of requests for technical assistance on basic definitions, relationships between physical and psychological limitations and accidents, and methodology for recognition, treatment, and susceptibility to, and occurrence of, accidents.

Poison information centers increased in number among the States. Fifteen centers are now in operation and 12 others are in advanced planning stages. The American Public Health Association provides consultation to health departments and medical societies in the initial development of these centers. The feasibility of a National Poison Information Center received consideration.

In cooperation with the National Office of Vital Statistics, a survey was made of the accident-prevention activities sponsored by State and local health departments. The data reflected increased interest and activity and a greater demand for technical services.

Public Health Service activities in hygiene of housing were reviewed during the year. Considerable attention was given to housing rehabilitation and to increased emphasis on research associated with technological developments in housing.

Communicable Disease Center

This Division, with headquarters in Atlanta, Ga., maintains laboratories and field stations in various parts of the United States. It assists States in preventing and controlling outbreaks of communicable diseases through direct aid in epidemics and disasters; continuing field studies on the epidemiology of diseases; laboratory investigations for more rapid, accurate, and economical diagnostic techniques; development of more effective disease control materials and methods;

consultations and demonstrations; and training of public health personnel.

During the year, the Congress approved the construction of a new building for the Communicable Disease Center, which has been housed in temporary quarters at widely scattered locations. It will be built on land donated by and adjacent to Emory University, Atlanta, Georgia.

EPIDEMIC AND DISASTER AID

An important part of the Communicable Disease Center (CDC) program is providing aid in epidemic and disaster situations which tax or exceed State health resources. Thirty-five requests for epidemic aid came from 30 State and Territorial health departments, and units of the Armed Forces. About 20 separate diseases or conditions were involved, and they required the services of physicians, veterinarians, statisticians, nurses, bacteriologists, mycologists, engineers, and entomologists. These personnel helped identify the outbreaks and their sources, and assisted public health workers in applying effective control methods.

Emergency assistance was given on 13 occasions where natural disasters such as floods, tornadoes, hurricanes, or droughts created vector control or water supply problems. In these instances, CDC furnished manpower, special equipment, and materials as needed.

SURVEILLANCE AND INVESTIGATION OF DISEASES

The purpose of the CDC surveillance program is to prevent the reintroduction or resurgence of diseases now rare or absent in this country, and to accelerate the decline of others. CDC also serves as a clearinghouse for information on diseases of national importance. Although major emphasis was given to poliomyelitis this year, smallpox, leprosy, diphtheria, malaria and other vector-borne diseases also came under surveillance, with special attention directed to the arthropod-borne encephalitides.

CDC's Poliomyelitis Surveillance Unit, in cooperation with States, evaluated the safety and effectiveness of the poliomyelitis vaccine. In addition, CDC supported State and other non-Federal programs for the laboratory diagnosis and confirmation of poliomyelitis and poliomyelitis-like diseases. It also contracted with reference laboratories for special investigations concerned with the typing of viruses that produce poliomyelitis-like syndromes. Laboratory evaluation of over 10,000 cases reported as poliomyelitis indicated that a significant proportion of nonparalytic cases were due to causes other than the poliomyelitis viruses. An outbreak of poliomyelitis-like disease in Marshalltown, Iowa, involving about 1,000 persons, was investigated and found to be caused by an ECHO virus. This was the first time

a so-called "orphan" virus was related to a specific disease outbreak involving a sizable community.

The year 1955 was marked, generally, by low incidence of the viral encephalitides. Eastern equine encephalitis occurred sporadically in human beings but widely in horses and pheasants throughout the Atlantic and Gulf States. St. Louis encephalitis was seen in epidemic form in two areas of the country—the lower Ohio River Valley and Nevada. CDC aided in investigating the encephalitis outbreaks and stimulating more complete reporting of this disease.

The steep downward trend in incidence of diphtheria showed a reversal during the past 18 months. However, the mortality rate, which has never declined significantly, remained at about 6 to 7 percent. Hence, this disease again became a threat, calling for intensified immunization programs and surveillance in particular localities and population groups.

A sharply defined outbreak of viral hepatitis, involving 232 cases in Pennsylvania, was traced to a contaminated municipal water supply. A followup study of an earlier outbreak in Kentucky, with emphasis on detecting residual effects of the infection, revealed that approximately 30 percent of the cases evidenced chronic liver disease.

The majority of psittacosis cases were attributed to contact with parakeets and other psittacine birds. However, the most serious outbreak involved 60 persons in Oregon who had contact with infected turkeys on farms and in rendering plants.

The incidence of rabies among dogs continued to decline as a result of immunization programs, but the known incidence in wild animals increased. Approximately 20 percent of the human cases in this country during the past 4 years have been attributed to exposures to rabid wild animals, pointing up the need for more intensive studies of the disease in nature.

Sylvan animals, particularly rodents, were found to be a possible source of leptospiral infections in domestic animals and man. A review of 35 human cases of the disease showed that 32 of the patients had known association with animals or with their contaminated environments.

LABORATORY SERVICES AND NEW TECHNIQUES

During the year CDC performed the following laboratory services: (1) processed 27,762 reference diagnostic specimens received from State health departments, from other Federal agencies, and from foreign countries; (2) prepared and stocked 32 types of antigens and antisera, which are not available commercially, for use by State laboratories; (3) served as a referee for intrastate laboratory programs, evaluated the parasitology diagnosis for six States and bacteriology

diagnosis for seven, and evaluated the vector control program in Puerto Rico.

A fluorescent antibody staining procedure has been worked out for the detection of *Vibrio comma*, *Brucella* sp., *Pasturella pestis*, *Bacterium tularense*, and two species of *Malleomyces*. Low concentrations of *Malleomyces pseudomallei* can be detected rapidly even in heavily contaminated materials, and it is believed that other agents can be stained under similar circumstances. This time-saving technique would be vitally important in the event of a national emergency.

An apparently specific diagnostic test for myoglobulinuria using paper electrophoresis has been developed. A new procedure for reading stained patterns in paper electrophoresis studies indicates that the change in gamma globulin reflects, within limits, the trend and degree of nonspecific abnormality of all serum proteins.

In airborne pathogens studies, an impinger which collects microscopic particles and is capable of sampling large volumes of air at high velocity was designed and fabricated.

VECTOR CONTROL

Investigations were continued to develop increasingly safe and effective methods of controlling flies, mosquitoes, rodents, and other disease vectors. The fact that mosquitoes create problems to health and comfort other than transmission of disease has led to further control efforts.

In field experiments in the Milk River Valley, Mont., residuals from pre-flood treatments with dieldrin and heptachlor larvicides for the control of mosquitoes (principally *Aedes vexans* and *Aedes dorsalis*) in irrigated areas were completely effective throughout the 1955 season. On experimental plots of fertilized irrigated land in the Milk River Valley of northern Montana, mosquito production was eliminated and yields of western wheat grass were increased fivefold. In all, approximately 100 Federal water resources development projects were studied, and recommendations were made on the incorporation of vector control into planning, construction, and operation.

In studies on the toxicity of insecticides, investigation was made of the adverse effects suffered by fruit thinners in parathion-sprayed orchards. Respiratory exposure appeared to be negligible, but significant dermal contamination indicated the validity of a 48-hour waiting period before entering sprayed orchards.

Experiments in high-rate mechanical composting of municipal refuse to eliminate or minimize vector breeding and feeding demonstrated that the addition of 20 and possibly 25 percent of raw garbage to composting refuse does not interfere with the normal process. When composting is kept on a continuous basis, the breakdown process can be completed in 4 or 5 days. At Phoenix, Ariz., a "high

grade" compost no longer attractive to flies was produced outdoors in 6 weeks when raw refuse was ground and piled in windrows.

Vector control demonstration projects were conducted at Laredo, Tex.; Cedar Rapids, Iowa; Gadsden, Ala.; and Boise, Idaho. They were designed to assist the States with such problems as refuse handling and disposal, elimination of insanitary privies, rodent control, proper maintenance of animal shelters, and control of mosquito production in manmade breeding places such as irrigated lands and log ponds.

TRAINING

During the year, 73 organized training courses were presented on approximately 250 separate occasions. They were attended by more than 5,000 people, including employees of State and local health departments, other Federal agencies, and industries, and health workers from foreign countries. Individual instruction was given to an additional 100 people. Courses were held in Atlanta, in CDC field stations, and in various States. CDC also distributed more than 100,000 items of training material, including audiovisual aids and literature.

To extend the benefits of laboratory training services, qualified individuals and State laboratories were supplied with specimens for review and practice in diagnosis. More than 4,000 parasitology, mycology, pulmonary mycology, and tuberculosis specimens were distributed.

Dental Public Health

The Division of Dental Public Health works toward better dental health for every citizen. To this end, the Division develops public health methods for reducing the prevalence of dental disease, and aids States and communities in applying these methods.

PROGRAM SERVICES

During the year, four additional States initiated dental public health programs, making a total of 50 States and Territories that now have such organized programs. The dental health program guide, developed by the Division in 1954, was widely used by State dental health directors in planning their activities.

States continued to request and receive consultative services from the Division. Several States were helped in developing various elements of their programs; and several communities were assisted in conducting various types of dental surveys.

A recruitment program was conducted for State and local dental programs. This program included talks to student dentists and dental hygienists, courses and lectures on dental public health presented in

schools of dentistry, and consultation with personnel of State health departments on methods of recruiting, examining, and evaluating applicants for dental public health positions. Aid was also provided in the orientation and training of dental personnel in State and local health work.

OPERATIONAL RESEARCH

The Division of Dental Public Health also conducts a program of operational and developmental research. Significant research in progress this year includes:

1. Development of a model chemical feeder which makes it possible to use calcium fluoride in the fluoridation of water supplies. This product is plentiful and is more economical to use than the fluoridating agents now employed.

2. Testing of home fluoridators which can be used to fluoridate individual water supplies.

3. Examinations and analysis of the 11th year experience of the Grand Rapids, Mich., water fluoridation project.

4. Completion of three-fourths of the second round of examinations and treatment of 4,000 children participating in the Gainesville, Fla., dental study program representing 90-percent participation of the school population; and completion of the second series of examinations and treatment of 2,000 children participating in the Cambridge, Md., dental study program representing 88 percent of the school population.

5. Preliminary work which indicates that aqueous methyl red may be an effective device for indicating caries activity and predicting where new caries will occur.

6. Analysis of data which will lead to development of a method of determining the appropriate fluoride concentration in water supplies under varying climatic conditions.

7. Study of dental care problems in a chronic disease institution to determine dental needs and evolve effective and economical measures for meeting them.

8. Collection of data on fluoridation. By the Spring of 1956, over 26 million people living in 1,300 communities were served by fluoridated water supply systems. Major cities which began fluoridation during the year included St. Louis, Toledo, Cleveland, and Chicago.

Division of International Health

Through the Division of International Health, the Public Health Service maintains active relationships with the World Health Organization (WHO), the Pan American Sanitary Organization, and

other health agencies. The Division is also the primary source of assistance to the Department of State in international affairs related to health, and to the International Cooperation Administration (ICA) of the Department of State for staffing and technical aid to United States Operations Missions abroad.

During the year the chief and other officials of the Division served on United States delegations to five major international conferences. These included the Ninth World Health Assembly, which met in Geneva, Switzerland, the Directing Council of the Pan American Sanitary Organization, which met in Washington; the meeting of the Regional Committee of the World Health Organization for the Western Pacific, which met in Singapore; the Third South Pacific Conference; and the Fifteenth Session of the South Pacific Commission in Suva, Fiji Islands. In addition, members of the Division served as the United States members at two meetings of the Executive Board of the World Health Organization, and represented the United States at three meetings of the Executive Committee of the Pan American Sanitary Organization.

TRAINEES AND VISITORS

The Public Health Service aided health personnel of 72 countries who visited or studied in the United States during 1956. Training programs were arranged for 886 foreign trainees, of whom 634 were sent to the United States by ICA Missions in 47 countries, and 252 were sponsored by WHO and other United Nations agencies, foreign governments, and private foundations and organizations. The largest number, 356, came from the Far East, 286 from Latin America, 72 from Europe, and 172 from the countries in the Near East, Africa, and South Asia.

Fifty academic and 20 clinical institutions and 19 other organizations such as State health departments were used for the training of these foreign health workers.

Among the visitors to the United States was a delegation of four medical scientists from the Union of Soviet Socialist Republics, the first official health delegation from that country to visit the United States since World War II. The Division made arrangements for their visits to laboratories and other facilities associated with the development and production of poliomyelitis vaccine. Arrangements were made by the Division for a reciprocal exchange visit in May of five American microbiologists to the U. S. S. R.

FOREIGN MISSIONS

The Division of International Health provided personnel and technical support to the United States bilateral technical assistance pro-

grams under the terms of the Department of Health, Education, and Welfare-International Cooperation Administration agreement. The Division recruited and assigned to ICA 186 public health workers. It reviewed and evaluated 299 proposals for the initiation, continuation, or expansion of health projects in 44 countries.

Public Health Service specialists in tuberculosis control, schistosomiasis control, sanitary engineering, nursing, health education, and medical technology consulted with U. S. Operations Missions in 10 countries in Asia, the Near East, and Africa and in 5 countries in Latin America.

The Division provided staff assistance to the International Development Advisory Board in preparing a report recommending intensified United States support of the WHO malaria eradication program.

INTERNATIONAL EPIDEMIOLOGY

Material relating to the world distribution of disease, the status of national health organization, and the development of health facilities in foreign countries was collected and classified by the Division. This was made available to orientate personnel receiving foreign assignments, to answer inquiries, and to advise research workers in a number of fields.

Table 1.—Statement of appropriations, authorizations, obligations, and balances, fiscal year 1956

[In thousands]

Appropriations	Funds available for obligation				Total funds available	Amounts obligated	Balances
	Appropriations and authorizations	Net transfers between appropriations	Repayments for services	Prior year unobligated balances			
Total	\$395,508	\$535	\$16,931	\$64,174	\$485,709	\$361,272	\$124,437
Appropriations, Public Health Service	395,462	535	16,931	64,071	476,999	353,686	123,313
Control of tuberculosis	6,062	10	7	—	6,079	6,053	26
Control of venereal diseases	3,616	10	15	—	3,641	3,624	17
Assistance to States, general	18,387	—	127	—	18,514	17,577	937
Control of communicable diseases	5,451	—	289	—	5,740	5,723	17
Disease and sanitation investigations and control, Alaska	1,139	6	14	—	1,159	1,158	1
Sanitary engineering activities	4,880	—	163	—	5,043	4,996	47
Foreign quarantine service	3,170	—	—	—	3,170	3,154	16
Hospitals and medical care	35,665	—	2,770	—	38,435	38,351	84
Salaries and expenses, hospital construction services	1,290	9	—	—	1,299	1,282	17
Indian health activities	34,990	—174	538	—398	34,956	34,690	266
Construction of Indian health facilities	5,000	535	—	—	5,535	1,947	2 3,588
Grants for hospital construction	111,000	—	—	61,204	172,204	93,187	3 79,017
Construction of housing facilities for animals	600	—90	—	—	510	506	4
Surveys and planning for hospital construction	—	—	—	1,827	1,827	269	2 1,558
Patients' benefit fund, Public Health Service hospitals	21	—	—	15	36	16	2 20
Operating expenses, National Institutes of Health	5,929	—	12,947	—	18,876	18,655	221
Salaries, expenses, and grants, National Cancer Institute	24,978	—	—	—	24,978	24,830	148
Mental health activities	18,001	—	20	—	18,021	17,978	43
Salaries, expenses, and grants, National Heart Institute	18,808	90	—	—	18,898	18,838	60
Dental health activities	2,176	—	—	—	2,176	2,168	8
Buildings and facilities, Cincinnati, Ohio	415	—	5	—	420	392	2 28
Arthritis and metabolic disease activities	10,840	—	—	—	10,840	10,821	19
Microbiology activities	7,775	—	—	—	7,775	7,744	31
Neurology and blindness activities	9,861	—	—	—	9,861	9,668	193
Gorgas Memorial Laboratory	147	—	—	—	147	147	—
Construction of Biologics Standards Laboratory Building	3,190	310	—	—	3,500	130	2 3,370
Grants to States for poliomyelitis vaccination	57,800	—45	—	—	57,755	24,359	33,396
Construction of research facilities	—	—310	—	1,417	1,107	970	2 137
Retired pay of commissioned officers (annual)	1,355	—	—	—	1,355	1,333	22
Retired pay of commissioned officers (no year)	—	—	—	6	6	—	2 6
Salaries and expenses	2,916	184	36	—	3,136	3,120	16
Appropriations, special project funds made available by other agencies	—	—	—	—	8,561	7,562	999
Salaries and expenses, Bureau of Prisons (allocated working fund to HEW, PHS)	—	—	—	—	1,491	1,486	—
American Sections, International Commissions, State (allocated working fund to HEW, PHS)	—	—	—	—	74	72	2
Refugee Relief, Executive (transfers to HEW, PHS)	—	—	—	—	557	506	51

See footnotes at end of table.

Table 1.—Statement of appropriations, authorizations, obligations, and balances, fiscal year 1956—Continued

[In thousands]

Appropriations	Funds available for obligation				Total funds available	Amounts obligated	Balances
	Appropriations and authorizations	Net transfers between appropriations	Repayments for services	Prior year unobligated balances			
Operations, Federal Civil Defense Administration (allocated working fund to HEW, PHS)-----					154	152	2
Atomic Energy Commission (allocated working fund to HEW, PHS)-----					86	71	² 15
Research and development, Navy (allocated working fund to HEW, PHS)-----					93	72	² 21
Naval working fund (allocated working fund to HEW, PHS)-----					36	27	² 9
Research and development, Army (allocated working fund to HEW, PHS)-----					191	172	² 19
Research and development, Air Force (allocated working fund to HEW, PHS)-----					65	17	² 48
Army, industrial fund (allocated working fund to HEW, PHS)-----					25	12	² 13
Farm labor supply revolving fund, Bureau of Employment Security (allocated working fund to HEW, PHS)-----					318	307	² 11
Technical Assistance to American Republics and Non-Self-Governing Territories of the Western Hemisphere, Executive (transfers to HEW)-----					144	-50	² 194
Technical Assistance, U. S. Dollars Advanced from Foreign Governments, I. C. A. (transfers to HEW)-----					5	4	² 1
Plant and equipment, Atomic Energy Commission (allocated working fund to HEW, PHS)-----					15	3	² 12
Defense support, Europe, Executive (transfers to HEW)-----					18	17	1
Administrative expenses, Section 411, Mutual Security Agency Act, Executive (transferred to HEW)-----					114	110	4
Technical cooperation, general, Executive (transfers to HEW) (no year)-----					1,322	1,141	² 181
Technical cooperation, general, Executive (transfers to HEW) (annual)-----					2,893	2,594	² 299
Salaries and expenses, civil defense functions of Federal agencies, Federal Civil Defense Administration (allocated working fund to HEW)-----					807	703	104
Defense support, Asia, Executive (transfers to HEW)-----					153	146	7
Gift funds donated for general and specific purposes-----	46.1			103.2	149.3	24.3	² 125.0
Public Health Service unconditional gift fund-----	12.6			77.1	89.7	.7	² 89.0
Public Health Service conditional gift fund-----	33.5			26.1	59.6	23.6	² 36.0

¹ Liquidation of contract authorizations obligated in 1955 fiscal year.² Available for obligation in subsequent years.³ \$78,602 available for obligation in subsequent years.

Table 2.—Commissioned officers and civil service personnel as of June 30, 1956

	Full-time				Part-time (civilian)				
	Grand total full-time	Commiss- ioned officers	Civilian			Total part-time	When actually employed	Without compen- sation	Other
			Total	Washington metropolitan area	States				
Public Health Service.....	21,268	12,964	18,304	6,948	9,977	1,379	3,194	2,514	228
Office of the Surgeon General.....	546	64	482	448	34		14	2	9
Immediate Office of the Surgeon General.....	17	4	13	13			2		
Division of Finance.....	117		117	117					12
Division of Administrative Services.....	118	7	111	88	23				
Division of Personnel.....	145	427	118	118			3	1	2
Division of Public Health Methods.....	82	2	80	70	10		8	1	6
Offices other than Divisions (Health Emergency Planning, Information, Executive).....	50	7	43	42	1				
Details to other agencies.....	17	17							
Bureau of Medical Services.....	12,130	1,347	10,783	1,238	8,218	1,327	527	301	184
Office of the Chief.....	18	4	14	14			1	1	
Division of Administrative Management.....	113	3	110	110					
Division of Dental Resources.....	17	3	14	14					
Division of Foreign Quarantine.....	596	51	545	21	422	102	40	13	16
Division of Hospitals and Medical Facilities.....	89	14	75	75			1	1	
Division of Hospitals.....	5,995	829	5,166	143	5,004	19	310	210	15
Freedmen's Hospital.....	781		781	781			9	9	85
Division of Indian Health.....	4,156	239	3,917	47	2,665	1,205	161	75	9
Division of Nursing Resources.....	34	12	22	22			1	1	75
Details to other agencies.....	331	192	139	11	127	1	4	1	4
Bureau of State Services.....	3,122	895	2,227	738	1,437	52	2,479	84	9
Office of the Chief.....	93	5	88				12		
Communicable Disease Center.....	841	250	591	87	1		30	11	1
Division of Dental Public Health.....	32	11	21	21	588	2	7	18	2
Division of General Health Services.....	355	41	314	263		44	2,335	24	5
Division of International Health.....	87	17	70	70	7		1		
Division of Sanitary Engineering Services.....	476	145	331	82	240		14	6	4
Division of Special Health Services.....	682	125	557	211	340	6	80	36	1
Regional Offices.....	379	124	255	3	252				
Details to other agencies.....	177	177							

See footnotes at end of table.

Table 2.—*Commissioned officers and civil service personnel as of June 30, 1956—Continued*

	Grand total full-time	Commissioned officers	Full-time				Total Part-time	Part-time (civilian)		
			Total	Washington metropolitan area	States	Outside United States		When actually employed	Without compensation	Other
National Institutes of Health.....	5,470	658	4,812	4,524	288	---	174	127	21	26
Office of the Director.....	40	5	35	35	---	---	7	5	1	1
National Cancer Institute.....	762	130	632	558	74	---	19	10	3	6
National Heart Institute.....	374	99	275	237	38	---	17	13	---	4
National Institute of Allergy and Infectious Diseases.....	442	77	365	218	147	---	6	3	2	1
National Institute of Arthritis and Metabolic Disorders.....	336	83	253	283	---	---	7	3	3	1
National Institute of Dental Resources.....	81	24	57	56	1	---	16	14	1	1
National Institute of Mental Health.....	366	65	301	274	27	---	20	16	1	3
National Institute of Neurological Diseases and Blindness.....	176	28	148	148	---	---	13	12	---	1
Clinical Center.....	1,332	117	1,215	1,215	---	---	60	48	9	3
Division of Biologics Standards.....	145	15	130	130	---	---	1	1	---	---
Division of Business Operations.....	565	1	564	564	---	---	2	---	1	1
Division of Research Grants.....	128	4	124	124	---	---	3	1	---	2
Division of Research Services.....	693	10	683	682	1	---	3	1	---	2

¹ Includes 1,266 Regular Corps officers and 1,698 Reserve Corps officers.³ Includes 2,303 collaborating epidemiologists and special agents.⁴ Includes 11 officers on temporary (2 weeks) training duty.² Excludes those part-time employees not in pay status during the month of June 1956

Table 4.—Payments to States, fiscal year 1956

[In thousands]

State	Vene- real disease special projects	Tuber- culosis control	General health	Mental health	Cancer control	Heart disease control	Polio- myeli- tis vac- cination assistan- ce	Medi- cal fa- cilities survey and plan- ning	Hospi- tal and medical facili- ties con- struc- tion	Com- munity facili- ties
Total.....	\$1, 188	\$4, 488	² \$13,332	\$2, 981	\$2, 218	\$1, 088	\$24, 359	\$287	\$54, 373	\$647
Alabama.....	34	109	420	65	54	30	847	2	1, 722	-----
Arizona.....	28	55	99	19	17	1	150	2	68	-----
Arkansas.....	29	81	225	40	37	21	400	1	799	-----
California.....	14	270	801	182	143	50	1, 396	31	3, 855	-----
Colorado.....	34	145	25	24	16	291	-----	-----	83	-----
Connecticut.....	2	49	119	36	28	16	346	6	106	-----
Delaware.....	7	16	24	19	5	11	29	-----	26	-----
Dist. of Columbia.....	45	42	50	19	10	13	101	-----	228	-----
Florida.....	83	81	331	63	50	25	777	-----	1, 392	34
Georgia.....	113	112	369	72	57	31	894	10	2, 557	49
Idaho.....	6	17	86	19	13	13	95	2	212	-----
Illinois.....	18	230	491	145	117	38	1, 194	9	556	225
Indiana.....	-----	88	215	57	54	25	218	24	804	-----
Iowa.....	-----	38	159	44	40	21	84	8	787	-----
Kansas.....	2	39	192	36	30	17	456	10	1, 074	214
Kentucky.....	27	129	346	60	51	27	690	3	1, 386	-----
Louisiana.....	32	92	271	56	44	22	665	6	2, 256	-----
Maine.....	-----	23	107	19	18	14	177	-----	567	-----
Maryland.....	6	86	185	42	25	17	190	2	1, 129	108
Massachusetts.....	-----	118	356	84	70	28	960	19	959	-----
Michigan.....	36	147	475	117	84	33	1, 008	23	1, 414	-----
Minnesota.....	-----	51	274	53	45	23	876	5	1, 258	-----
Mississippi.....	42	80	363	51	47	27	574	-----	1, 002	-----
Missouri.....	25	110	341	73	61	27	182	4	2, 186	-----
Montana.....	-----	20	78	19	13	13	85	8	112	-----
Nebraska.....	5	25	122	22	16	13	112	5	744	-----
Nevada.....	2	12	36	19	6	10	12	2	421	4
New Hampshire.....	-----	9	53	19	-----	10	113	-----	303	-----
New Jersey.....	44	125	338	86	65	25	852	9	84	8
New Mexico.....	19	33	106	19	15	14	154	6	122	-----
New York.....	100	385	940	248	189	46	2, 110	12	3, 566	-----
North Carolina.....	83	109	465	83	65	29	678	14	2, 478	-----
North Dakota.....	-----	23	91	19	14	13	234	3	432	-----
Ohio.....	55	187	438	142	108	38	618	-----	1, 286	-----
Oklahoma.....	10	64	224	42	36	21	259	2	1, 056	-----
Oregon.....	-----	34	150	26	21	13	80	10	468	-----
Pennsylvania.....	48	282	744	184	129	49	600	1	3, 589	-----
Rhode Island.....	-----	25	63	19	12	10	167	-----	130	-----
South Carolina.....	62	75	286	46	37	24	701	4	950	-----
South Dakota.....	1	15	79	19	15	13	207	2	176	-----
Tennessee.....	61	127	373	67	45	29	727	5	3, 042	-----
Texas.....	91	211	660	151	111	39	465	7	2, 764	-----
Utah.....	-----	17	85	19	13	13	224	2	66	-----
Vermont.....	-----	16	46	19	8	³ 12	79	-----	118	-----
Virginia.....	24	111	310	67	43	9	968	7	2, 236	-----
Washington.....	1	50	188	39	32	19	200	-----	336	5
West Virginia.....	1	60	203	35	31	18	289	5	873	-----
Wisconsin.....	-----	51	281	57	43	16	911	-----	1, 188	-----
Wyoming.....	2	3	54	12	8	1	11	-----	91	-----
Alaska ⁴	-----	43	63	19	-----	6	22	2	242	-----
Hawaii.....	-----	31	51	19	7	13	57	8	-----	-----
Puerto Rico.....	23	242	354	50	12	25	785	6	1, 094	-----
Virgin Islands.....	7	6	7	19	-----	1	11	-----	-----	-----
Canal Zone.....	-----	-----	-----	-----	-----	-----	11	-----	-----	-----
Guam.....	-----	-----	-----	-----	-----	-----	17	-----	-----	-----
American Samoa.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

¹ Includes \$195,000 in services and supplies furnished in lieu of cash.² Includes \$3,607,000 earmarked for poliomyelitis vaccine distribution and use.³ Vermont allotment paid to Vermont Heart Association.⁴ An additional payment of \$638,000 was made to Alaska for disease and sanitation investigation and control activities.

Office of Education

I. Introduction

FISCAL YEAR 1956 was unusually significant for American education and for the Office of Education. Throughout the country there was unprecedented recognition of the contribution of the schools to the national welfare—recognition that what the schools contribute to an individual they contribute to the strength of the Nation. The emphasis was on citizen-educator cooperation, on getting the facts, on action to improve the schools. At local, State, and National levels educators and laymen organized to appraise the accomplishments of schools, to identify and look squarely at the problems facing schools. They found much to be done.

At the local level, in rural communities, small towns, and cities, parents and other citizens displayed an increased interest in their schools; they served on curriculum and other planning committees, assisted with the school-lunch program, and worked on the school playground. Ten million members of parent-teacher associations discussed school programs, problems, and policies. They all asked for facts.

State departments of education sought solutions to old and new problems and better methods of serving the schools. They too asked for facts. In many States legislatures provided for greater financial support for schools, improved provisions for teacher welfare, and studied various methods of providing for a better education for their children.

State and local interest and activity, as well as official recognition of the severity of the educational problems, were reflected in action at the Federal level: In the White House Conference on Education, in the President's Conference on the Fitness of American Youth, in

the President's appointment of a committee on education beyond the high school, in the volume of legislative activity, and in increased demands on the Office of Education.

The Office of Education, as the agency of the Federal Government established "to promote the cause of education," was vitally concerned in all this educational ferment. Its functions, as defined by the organization act of 1867, are to collect such statistics and facts as shall show the condition and progress of education, to diffuse such information as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education.

The Office's primary means of discharging its responsibilities for these functions is through the collection, interpretation, and publication of statistics; through research and publication of its findings; and through rendering consultive and advisory services. From time to time administrative functions have been added to Office responsibilities, and in 1956 the Office administered Federal funds under three programs: for vocational education of less than college grade, for land-grant colleges and universities, and for school assistance in federally affected areas. Thus it will be seen that the Office is authorized to work primarily in three areas: Research, services, and the administration of grants. Some of its major accomplishments in each area will be summarized in this report.

For many years the Office has cooperated with other Federal agencies in educational and related programs, some in voluntary association and some in response to legislative mandate. The Office continued such cooperation in 1956.

White House Conference on Education

THE CONFERENCE

The Eighty-Third Congress, in response to the President's request, authorized and appropriated funds for use of the States and Territories for local, regional, and State conferences leading to a White House Conference on Education. In December 1954, President Eisenhower named a 34-member Committee for the White House Conference on Education to plan and conduct an overall study of the Nation's elementary and secondary school needs. More than 4,000 local, regional, and State conferences on education were held during 1955, involving more than a half-million citizens. Under the American system of local school control, each State and Territory evolved its own program without direction from the President's Committee. The year's activity was the most thorough, widespread, and intensive study the American people have ever made of their educational system.

The White House Conference, held November 28 to December 1, 1955,

in Washington, D. C., climaxed the series of State and Territorial Conferences. More than 1,800 persons within the States and Territories, including representatives of national organizations, took part in the discussion of the six topical questions posed at the conference.

There has been widespread agreement that the White House Conference emphasized the importance of education to the well-being of the Nation and the individual, made available to many interested citizens information on needs of education and the existing resources, and stimulated interest in education. In his Special Message to the Congress, January 12, 1956, the President commented on the conference:

Benefits are already apparent. About half a million people across the Nation, representing all segments of life, came to grips with the problems of education. The status of American education—where it is; the future of American education—where it should and can go—have been illuminated as never before. Most important of all, there has been a reawakening of broad public interest in our schools * * * no more potent force can be devised for assailing a problem than the common will to do the job. For the improvement of our educational system, the people themselves have laid the foundation in understanding and willingness to do the job.

REPORT TO THE PRESIDENT

In April 1956 the Committee for the White House Conference on Education presented its report to the President. The 126-page report is in three parts: (1) The committee's statements and recommendations, (2) the Report of the White House Conference on Education, and (3) a summary of the State conference reports.

THE COMMITTEE REPORT

The committee report contains 79 specific recommendations for the improvement of schools in the 6 areas of elementary and secondary education the conference was asked to study. From its own studies and results of State and Territorial conferences and the White House Conference, the 34-member committee concludes that the schools now affect the welfare of the Nation more than ever before in history.

The report embraces the traditional concept of education in a democracy: Schools free men to rise to the level of their abilities; they stand as the chief expression of the American tradition of fair play for every one and a fresh start for each generation. The committee also accepts the broadened functions of education: To improve the child's health; to provide vocational training; and to do anything else within its power to help bring the child up to the starting line as nearly even with his contemporaries as his native skills will permit.

The committee report recognizes the progress that has been made in American education, but points out that schools have fallen far behind the aspirations and the capabilities of the American people. To help close the gap between educational ideals and realities, the com-

mittee makes a number of recommendations. Some of them are summarized below.

1. That school authorities emphasize priorities in education, that school children be given first things first.

2. That American people deny funds, other than local, to districts which do not organize on an efficient basis.

3. That local boards quickly assess their school building needs, give the information to chief State school officers, who in turn can relay it to the Office of Education; That State and local communities do all they can to construct new buildings and that where necessity is shown to exist, Federal funds be used in such emergencies as the present.

4. That greater inducement be offered to attract and retain good teachers and that, while the shortage exists, greater effort be made to use teacher services more efficiently.

5. That a new look be taken at the question of how much money the Nation should spend on education. (A doubling of present expenditure during the next decade would be an accurate reflection of the importance of education to society. Funds must come from all levels of government. Good schools are admittedly expensive, but not nearly so expensive in the long run as poor ones.)

6. That every possible step be taken to encourage the interest and activity of citizens in school affairs.

7. That a White House Conference on higher education similar to the one on elementary and secondary education be held promptly.

CONFERENCE REPORT

Part 2 of the report to the President—the official report on the White House Conference—presents the six summary conclusions reached by the discussion groups on the six questions participants had been asked to consider. A few significant conclusions are quoted below.

What Should Our Schools Accomplish?

It is the consensus of these groups that the schools should continue to develop:

1. The fundamental skills of communication—reading, writing, spelling as well as other elements of effective oral and written expression; the arithmetical and mathematical skills, including problem solving. While schools are doing the best job in their history in teaching these skills, continuous improvement is desirable and necessary.

New Challenges in Education

Consideration must be given to the need for continuing growth and development in education at all levels in amount and scope, to keep up with the economic, social, and moral implications resulting from the advances in technology and science.

What Are Our School Building Needs?

It appears that under present plans only 2 or 3 States have been quoted as stating that they can meet their building needs for the next 5 years.

We have taken the question exactly as stated. Under the present plans and time limitations stipulated, it seems to be virtually impossible for most of the States to meet school building needs.

The general consensus was this: No State represented has a demonstrated financial incapacity to build the schools it will need during the next 5 years. But, with the exception of a few States, none of the States presently has plans which indicate a political determination powerful enough to overcome all of the obstacles.

Some Territories and a few States may need outside financial assistance.

How Can We Get Enough Good Teachers—And Keep Them?

We believe that, to increase the supply of good teachers from any source, three basic considerations must be kept in mind:

1. The prestige and status of teaching must be comparable to other professions within the community.
2. The salary structure must be high enough and flexible enough to compete effectively with other fields bidding for quality manpower.
3. The teacher's job must be so defined as to challenge and attract the interest of talented people.

How Can We Finance Our Schools—Build and Operate Them?

The participants approved by a ratio of more than 2 to 1 the proposition that the Federal Government should increase its financial participation in public education. Of those favoring such increase, the overwhelming majority approved an increase in Federal funds for school building construction. On the issue of Federal funds to the States for local school operation, the participants divided almost evenly. A very small minority was opposed to Federal aid for education in any form.

How Can We Obtain a Continuing Public Interest in Education?

We agreed that the energy, intellectual effort, and investment of money on the White House Conference on Education will be futile unless specific and positive actions are undertaken at the local, county, State, and National levels to meet the existing crisis in education and plan for future needs.

Five of the six conference reports commented on the role of the Office of Education in the current effort to improve the Nation's schools. Among the recommendations on the Office were the following: That the Office be further strengthened to perform the functions it is now performing in making reports, in carrying on research, and in providing promptly statistical information needed; that the Office make a study of certification standards and establish a basis for reciprocity in certification among the States.

The official report also recommended that a White House Conference on Education be held periodically at national, State, and local levels.

STATE AND TERRITORIAL SUMMARIES

Part 3 of the report, a summary of State and Territorial reports, made a number of recommendations and suggestions on the Office and Office activities. Among them were the following: That the Office increase its staff in adult education; disseminate its findings more

widely; and expand its services to include regular communications on research in school building construction.

FOLLOWUP

Many States and national organizations are following up the White House Conferences in a variety of ways. Missouri is planning 6 followup conferences; Oregon has held 32 followup meetings; and other States have organized planning committees. National Organizations are working on topics of the White House Conference, teacher recruitment, school financing, organization of citizen committees, and others.

In the Office of Education an Advisory Committee of National Organizations composed of lay and educational organizations advises and makes recommendations to the Commissioner and his staff "to promote the cause of education throughout the country." It also advises on Conference followup work.

The Report of the White House Conference Committee is available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

President's Conference on Fitness of American Youth

Because of his concern that we "do more than we are now doing to help our young people become physically fit and therefore better qualified, in all respects, to face the requirements of modern life," President Eisenhower called a Conference on Fitness of American Youth. This conference was held at the U. S. Naval Academy, Annapolis, Md., on June 18-19, 1956. The Office of Education assisted the White House and Vice President Richard M. Nixon, who served as conference chairman, in the planning, conduct, and followup of this important meeting.

The 150 participants included representatives of local, State, and Federal Governments; professional education, health, medical, and recreation organizations; child and youth-serving agencies; civic groups; the motion picture industry; radio and television networks; amateur and professional athletics and sports; and newspaper and magazine editors and publishers; sportscasters and sportswriters.

The conference discussion resulted in a number of important findings and recommendations. Among these were the following:

1. A fitness program should provide for development of the total person—physical, spiritual, mental, emotional, social, cultural—and should recognize the interrelationship of all personality factors.

2. Research is needed to determine the full nature and dimensions of the youth fitness problem and to supply the facts essential in formulating new policies, plans, and programs, and in improving old ones.

3. Schools, community recreation agencies, youth organizations, and other groups should take steps to expand and improve programs of health, physical education, recreation, sports, and other aspects of youth fitness by providing necessary leadership, programs, and facilities to meet the needs of all the Nation's boys and girls.

4. Within the community, and on regional, State, and national levels as well, full coordination and cooperation among public and private agencies and organizations and interested citizens are needed to insure wise planning and efficient use of fitness resources.

5. Although a regimented national youth program is to be avoided, a number of Federal agencies do provide appropriate services relating to youth fitness. Therefore, the President should provide for extension and improved coordination of Federal services and should establish a citizens' advisory group to lend assistance toward this end.

In response to the last recommendation, President Eisenhower, through an Executive order issued on July 16, 1956, established a President's Council on Youth Fitness and a President's Citizens' Advisory Committee on the Fitness of American Youth. The council is composed of the Vice President of the United States, who serves as chairman, and the heads of departments that are concerned with the activities of young people—the Departments of Health, Education, and Welfare; Agriculture; Interior; Justice; and Labor. The creation of a council at cabinet level should provide for better coordination of the activities of some 30 Federal agencies that touch the lives of children and should stimulate and improve existing programs.

The Citizens Advisory Committee will be appointed because the conference recommended and the President agreed that the American people need to be made freshly aware of the importance of physical and other recreational activity. The President points out the need for a comprehensive study and reevaluation of all government and non-government activities relating to the fitness of American youth.

Through the work of the council and the committee, American citizens in general should benefit from the findings and recommendations.

The Office of Education will cooperate with the council and the committee.

The Report to the President of the U. S. on the Annapolis Conference is available in booklet form from the Superintendent of Documents, U. S. Government Printing Office.

President's Committee on Education—Beyond the High School

In his special message to the Congress on January 12, 1956, President Eisenhower expressed concern about the growing problems in

the field of education beyond the high school and his belief that immediate action on the problem was needed. He said :

Shortages now exist in medicine, teaching, nursing, science, engineering, and in other fields of knowledge which require education beyond the level of the secondary school. Changing times and conditions create new opportunities and challenges. There are now possibilities for older persons, properly trained, to lead more productive and rewarding lives. The tide of increasing school enrollment will soon reach higher educational institutions. Within 10 years we may expect 3 students in our colleges and universities for every 2 who are there now.

Higher education is and must remain the responsibility of the States, localities and private groups and institutions. But to lay before us all the problems of education beyond high school, and to encourage active and systematic attack on them, I shall appoint a distinguished group of educators and citizens to develop this year, through studies and conferences, proposals in this educational field. Through the leadership and counsel of this group, beneficial results can be expected to flow to education and to the Nation, in the years ahead.

The President's concern for this area of education was shared by the Committee for the White House Conference on Education and by interested citizens generally.

In April 1956, President Eisenhower appointed a committee of 33 prominent lay leaders and educators to undertake a large-scale study of post high school education.

At the first meeting the committee agreed on basic objectives: First, to collect, assemble, and disseminate information for the purpose of increasing public awareness of the problems which lie ahead in the field of education beyond the high school; second, to encourage the planning and action that should be undertaken by institutions and groups of institutions, locally and nationally, publicly and privately, to meet the impending demands; and third, to advise the President on the proper role of the Federal Government in this field.

In considering these objectives at its first and second meetings, the committee discussed a wide range of problems on which facts were needed and on which planning and action should be forthcoming. For example, the following questions presented themselves:

What aims should guide the provision of education beyond the high school? What should be done to supply the quantity and quality of persons for science, industry, government, and education? to meet other educational needs of persons with a wide range of abilities and interests before, during, and after their work careers? to staff the schools and colleges with qualified teachers? How can physical facilities—classrooms, laboratories, libraries, dormitories—be provided for the 5 to 7 million students who will be ready for college by 1970? What will be the annual cost of educating, or of failing to educate, the number of persons necessary to serve the vocational and other

needs of an increasing population? What adjustments may be needed in existing institutions? What, if any, changes in the role of the Federal Government in this field should be made? What implications are there for higher education in the international and defense activities of the United States?

The committee has reached general agreement upon the most effective method of working.

The President's committee, assisted by a small staff and by consultants, will collect, compile, and organize statistics and other information needed to shed light upon the true dimensions of the problem areas mentioned above, and will publish a series of reports. States will be asked to organize State committees, made up of educators and lay leaders to study the State conditions and stimulate interest and action at the institutional, local, and State levels. During the spring of 1957 the President's committee will sponsor a series of perhaps five regional conferences to emphasize current problems and to assist the States in framing the basic issues for consideration at the local and State levels.

States will then develop their own studies, and conferences will be held to clarify and crystallize public views on such questions as those suggested above, and to encourage institutional, local, and State activity to accomplish agreed-upon objectives.

During this process the President's committee will have a good opportunity to decide whether it should call a national meeting. If such a conference is held its purpose will be to have representative Americans, well grounded by their State and regional studies, gather to discuss these problems from a national perspective and to advise the President's Committee on pertinent matters.

Legislation

Fiscal year 1956 was a period of increased legislative activity. Although the number of public laws enacted by the United States Congress affecting education was relatively small, the scope and variety of education bills introduced and considered indicate a growing concern with the Nation's educational system. Some of the bills introduced proposed scholarships and fellowships, veterans' educational benefits, loans for college housing, assistance for medical school construction, graduate and undergraduate traineeships, tax deductions or exemptions for tuition payments, international exchanges of students, general aid for school construction, aid for federally affected areas, nurse training, and fine arts.

The area of greatest activity consisted of proposals for general Federal aid to school construction. During the 84th Congress the Administration's legislative program included recommendations for the enactment of such legislation, and the President, on February 8, 1955,

and again on January 12, 1956, submitted to the Congress special messages on this subject. A general school construction aid bill was reported to the House of Representatives in 1956 and debated, but failed to pass.

Among the measures enacted by the Congress during 1956, 6 are of direct interest to education: Public Laws 204, 221, 345, 382, 597, and 634.

Public Law 345, approved August 11, 1955, amends Title IV of the Housing Act of 1950 by increasing the amount of college housing loans that may be outstanding at any one time, from \$300 million to \$500 million. It also expands the program to permit loans on additional types of self-liquidating education facilities (dining halls, student centers, infirmaries, etc.), provides for a decreased interest rate for borrowers, and lengthens the maximum maturity on loans from 40 to 50 years. The added funds will help colleges build to meet expanded enrollments.

Several amendments to legislation providing assistance for schools in federally affected areas (Public Laws 815 and 874, as amended) were enacted during the year.

Public Law 204, approved August 1, 1955, which amends Public Law 874, provides for the continued operation of a limited number of schools on military installations. Under the amendment the responsibility for determining whether the free public educational facilities available to children residing on military installations are "suitable," within the meaning of Public Law 874, will be exercised jointly by the Commissioner of Education and the Secretary of the military department concerned, after consultation with the appropriate State school agency.

Public Law 221, makes Oak Ridge, Tenn., and Richland, Wash., atomic energy installations, eligible for payment under the provisions of Public Law 874.

Public Law 382 amends Public Laws 874 and 815, as amended, by extending for 1 additional year assistance to local agencies in areas affected by Federal activities; liberalizes the formula for calculating payments; postpones for 1 more year the 3-percent absorption requirement; provides for the transfer of title to certain federally constructed school facilities to local educational agencies and improves the administrative machinery for certain "unhoused" and Indian children.

Public Law 597 approved June 19, 1956, established a 5-year, Federal grant-in-aid program to the States to assist in extending public library services to rural areas. The act authorizes Federal appropriations of \$7½ million annually for the fiscal year 1957 and each of the next 4 fiscal years for payments to States whose plans for the further extension of public library services to rural areas without such services,

or with inadequate services, have been approved by the Commissioner of Education.

The act provides for a minimum allotment of \$40,000 annually to each of the States (\$10,000 to the Virgin Islands) plus an allotment from the remainder of the appropriation based upon each State's rural population in relation to the rural population of the United States as a whole. The allotment for each State must be matched by the State on the basis of a formula which takes into account the relative financial ability of the States.

Public Law 634, approved June 29, 1956, establishes an educational assistance program for children of servicemen who died as a result of a disability or disease incurred in line of duty during World Wars I and II or the Korean conflict. Approximately 156,000 war orphans, average present age 10 to 14 years, will be entitled to 36 months of education and training under the act.

During the year the Office of Education further developed its services in the field of school law, particularly by providing information on State legislation to educators and laymen who are working to improve the nation's school system.

Progress and Problems

President Eisenhower in his special education message to the Congress, January 12, 1956, said:

Signs of heartening progress have come to light. Among these are classroom construction at a higher rate than ever before; teachers' salaries increased in many communities; the number of small, uneconomical school districts reduced; substantially more young people preparing for the teaching profession; private gifts to higher education at new heights; support of education at all levels greater than ever before.

Encouraging as these advances are, they are not enough to meet our expanding educational needs. Action on a broader scale and at a more rapid rate is clearly imperative.

We still do not have enough good classrooms for our children. There is insufficient emphasis on both short-range and long-term research into the core of educational problems. We need examination and study, from a broad viewpoint, of the increasing needs of higher education. These lacks are magnified by an ever-increasing stream of student enrollment and the increasing complexity of modern society.

In his message the President called for action on some of the most pressing problems in education: Federal aid to relieve the classroom shortage, a vigorous program of educational research to be conducted by the Office of Education, State and local attention to the need for good teachers, and for a commission study of education beyond the high school.

ENROLLMENT

A few figures will indicate the size of some of these problems. Total enrollment in public and nonpublic schools, including higher institutions, in 1955-56 was estimated by the Office of Education at 39,798,700, an increase of 1,670,200 over 1954-55. (See table 1.) Total estimated population in the United States was 165,271,000 at the beginning of fiscal year 1956. Total estimated enrollments therefore represented 24.1 percent of total population.

The estimated enrollment in elementary and secondary schools was 1,101,300 higher than the total in 1954-55, an increase of 3.1 percent. Elementary schools enrolled an estimated 776,200 more pupils in 1955-56, an increase of 2.8 percent over 1954-55, and secondary schools an estimated 325,100 more, an increase of 4.4 percent.

A total of 2,996,000 students enrolled in colleges and universities, the largest in our history and the fourth year of consecutive increases, with each of the last 2 years adding about one-fourth of a million students. This increase was the result of larger high school graduating classes and a larger percentage of students going on to college.

TEACHER SHORTAGE

The teacher shortage continued. When schools opened in the fall of 1955, they faced a shortage of 141,300 qualified elementary and secondary teachers. (See table 2.) The shortage had to be met by additional emergency teachers, by the reentrance of former teachers into the profession, and by further overcrowding of the classrooms. In the computation of the total shortage the additional teachers needed to reduce the present overcrowding or to enrich the curriculum were not taken into account.

CLASSROOMS

A record 62,600 classrooms and related facilities for elementary and secondary schools were constructed during the 1955-56 school year at an estimated cost of \$2.4 billion. Even with this large construction total, the gap between the number needed and the number of classrooms available remains wide.

MIGRANT CHILDREN

The Office continued its efforts to improve the educational opportunities of children of agricultural migrant laborers, estimated at 600,000 children in the United States in 1956. During the year Office staff members worked with two interagency groups devoted to the problem: The subcommittee of the President's Interdepartmental Committee on Children and Youth (now the Subcommittee on Children of Agricultural Migrants) and the Committee on Migratory Labor. The Office also periodically distributes packets of materials

on the education of migrants, inventories of State and Federal resources, and analyses of problems.

SCHOOL DROPOUT PROBLEM

The dropout problem continued to be serious. Of the 4½ million 16-to-17-year-olds in this country, over a million were not in school, and of these only a few more than half were employed. Some progress has been made, however, according to Office studies. A larger percentage of high school youth (age 14 to 17 years) in public and private schools is enrolling in high school—85 percent enrolled in grades 9 to 12 in the fall of 1955, as compared with 62 percent 10 years ago, and a larger percentage of those who enter is staying to graduate, 63 percent in 1954 as compared with 47 percent 10 years ago. The Office, in cooperation with the Department of Labor, conducted a Back-to-School Campaign during the summer of 1956.

MANPOWER SHORTAGE

Few developments in recent years have had such vast implications for American education as the growing public concern over existing shortages of technically trained manpower. Public concern, intensified by reports that the U. S. S. R. was producing increasing numbers of scientists and engineers, stimulated interest in scientific and technical training programs in U. S. colleges and universities.

Central to any consideration of this manpower problem is education, and the chief factor in the expansion of trained manpower is the capacity for training—the facilities for education, the need to improve teacher qualifications, curriculums, methods of instruction, facilities, and equipment, all are part of the problem. For this reason the responsibility falls on education to consider the needs created by technical and scientific advances. The Office of Education worked closely with the National Science Foundation, scientific organizations, Federal defense agencies, professional education and teacher-preparing organizations to coordinate efforts to increase the supply and improve the quality of trained scientists, engineers, and teachers in these fields.

SIGNS OF PROGRESS

There were other signs of progress in education, among them the following: More than 9 million pupils, or 31 percent of the total, were transported to and from school daily. Expenditure per pupil in average daily attendance increased from \$351 in 1953-54 to \$380 in 1955-56. The movement toward teaching foreign language in elementary schools gained momentum; 15 years ago fewer than 15,000 pupils were getting foreign language instruction in elementary schools, but in the school year 1955-56, nearly 300,000 were. There was increasing

cooperation between local schools and State departments of education and between State departments and the Office of Education.

At every level plans were being made. In the Office of Education plans provided for a broader program of research and for expanded service to education.

The Office of Education has made an effort to improve these phases of education all along the line. Specialists in science and mathematics have made a number of research studies, written reports of their findings, and served in consultive and representative capacities with professional associations and groups to improve the status of education in these fields. During the year the Commissioner organized an informal Office task force to keep abreast of rapid developments in the scientific manpower field and to publicize these developments in the interest of better coordination of all activities related to the field. Office specialists organized and disseminated data on educational developments pertaining to the shortage and with possible solutions. Continuing studies were made of earned degrees and offerings and enrollments in science and engineering.

Three Office specialists worked with the National Committee on the Development of Scientists and Engineers on methods and procedures of improving mathematics and science education in elementary and secondary schools.

Through its periodicals, *School Life* and *Higher Education*, the Office made information available on scholarships and grants offered for science study and digests of studies.

Research

Authoritative information is being sought about education at every level. Federal agencies, national associations in commerce, industry, and the professions, State departments of education, and local groups—all are demanding more facts. Probably at no time in history has there been greater need for factual information on education nor a greater audience for it than in the last few years.

In his special education message to the Congress the President said: "Basic to all endeavors in improving education is a vigorous and farsighted program of educational research."

In 1956 the Office of Education took major forward steps to provide an expanded and strengthened research program. Under the expanded program Office research is conducted under cooperative agreements with agencies outside the Federal Government, by the Office Research and Statistical Services, and by Office specialists. Although the cooperative phase of the program was emphasized in 1956, each phase of the program is important, each phase supplements the other,

and each contributes to the strength of the overall program. The intent and scope of the program were indicated by Secretary Folsom in October 1955. He said:

In the educational field, as we have already seen in health, one of the most basic needs is more research. We are working now on plans for an expanded program of educational research, which we hope to submit to the next Congress. The purpose is to help our Office of Education render a still more significant and effective service in leading the way for better education of all our children. We plan to study such specific problems as educating the retarded child, so he can lead a normal productive life. We also plan more research into the problems of educating the child with special abilities, so the Nation may utilize these abilities more fully. We plan research into the chronic problems of school housing, teacher staffing, and school financing. We hope to bring some light to unanswered questions that have handicapped our educational program for many years. In a related field, we hope to make vast improvements in our educational statistics, so we may specify more definitely just what and where our problems are and what needs to be done about them.

Some of the plans described by Secretary Folsom were put into operation in 1956. Details on the recently developed and the continuing programs are reported in the following sections of this chapter.

COOPERATIVE RESEARCH PROGRAM

The Office of Education operates three types of research programs: (1) Research studies conducted by Office of Education specialists, (2) statistical studies conducted by the Research and Statistical Services Branch, and (3) cooperative research with colleges, universities, and State educational agencies. All three programs are important, but cooperative research is the newest and is therefore given the most attention in this report.

Under Public Law 531, 83d Congress, the Commissioner of Education is authorized to "enter into contracts or jointly financed cooperative arrangements with universities and colleges and State educational agencies for the conduct of research, surveys, and demonstrations in the field of education." As a first step in initiating a research program under this law, the Commissioner asked specialists on the Office staff to identify a number of the most pressing problems in education. Then, with the advice of several leaders in education and research who served the Office as consultants, these problems were reviewed and ten of them were selected as particularly appropriate for concentration of efforts in the beginning phases of this program.

In developing the program the Office had the advice of an ad hoc committee of five outstanding research specialists in the field of education. Later the Commissioner appointed a permanent, nine-member committee which included the five members of the ad hoc committee and research specialists representing the social sciences, medicine, and the physical sciences.

The program emphasizes three broad areas of interest—the conservation and development of human resources, the staffing and housing of our Nation's schools, and the educational implications of our expanding technology and economy. In the human resources area there are included such problems as the education of the mentally retarded, the development of special abilities of students, the educational aspects of juvenile delinquency, and the retention and continuation of students. In the second area attention is focused on the problems of staffing the Nation's schools and colleges and the planning and costs of school construction, with special emphasis on institutions of higher education. In the third area there are such problems as the implications of expanding technology for vocational education, the educational problems resulting from population mobility, the educational needs of low-income, rural families, and the educational uses of television.

A general proposal for an attack through research was prepared on each of these ten problems. The proposals were reviewed by the ad hoc research advisory committee and by outstanding specialists in certain areas who served the Office as consultants.

Because of current public concern with the education of mentally retarded children, a special staff was set up to plan for research in this area and an ad hoc advisory committee on the education of the mentally retarded was appointed. With the advice and guidance of the committee, the Office prepared an extensive statement on the major research needs in this area and the facilities in institutions of higher education and in the State educational agencies which may be suitable and available for research.

The research advisory committee established the following criteria to be used in selecting proposals suitable for support by the Office: A project should (1) promise to have a value within a reasonable time, (2) attack a problem in which progress has been delayed by wide gaps in knowledge, (3) have significance for the country as a whole, and (4) give preference to new projects or to those in which duplication would be desirable as a scientific check on earlier conclusions. In recommending projects to be carried out in the cooperative research program, the committee will also consider (1) the competence of the person who will direct the project, (2) the research resources of the institution or State department of education under whose aegis it will be directed, (3) the scientific merit of the project, (4) the extent to which the project will help to develop research personnel, and (5) the need for research in the area proposed in terms of the total educational research picture.

Development of this program was a major activity of the Office during the year. By the end of June the Office had received 70 pre-

liminary proposals for research, and the number seemed likely to increase rapidly after information on the availability of funds became known.

RESEARCH AND STATISTICAL SERVICES

Reference Service

The work of the research and statistical reference service of the Office continued to expand throughout the year. New procedures for making current statistics available were instituted. In response to demands from governmental agencies, educational associations, and private industry, annual projections to 1965 were prepared for public and private elementary and secondary enrollments; projections to 1970 were prepared for total enrollments, fall enrollments, and first-time enrollments in institutions of higher education; and number of degrees to be conferred, by level, and by sex were projected to 1970. In addition, annual projections to 1965 were made for degrees to be conferred in six major fields of study (biological sciences, engineering, healing arts, physical sciences, social sciences, and "all other").

A 31-page set of National and State statistical tables on education was prepared for the Statistical Abstract of the United States (a Department of Commerce publication). UNESCO was furnished a 33-page report on educational statistics for the period 1950-54, inclusive, and on the attitude of the government toward the standardization of educational statistics for use at the Geneva UNESCO Conference.

Prompt publication of summaries of recent statistical studies was obtained through articles in *School Life* and *Higher Education*.

Research Consultation

Consultative services and appropriate statistics were provided to the President's Commission on Veterans Pensions, to an ODM subcommittee on specialized personnel, and to the Subcommittee on Low-Income Families of the Joint Committee on the Economic Report.

RESEARCH STUDIES BY OFFICE SPECIALISTS

Office specialists in the various subject matter fields and levels of education made a number of research studies in 1956. Some of the studies were made at the request of professional agencies and organizations; for instance three projects were carried out at the request of the Council of Chief State School Officers. Other studies dealt with problems widely recognized as urgent by educators, Federal officials, or laymen, such as Supervision in Rural Schools. Studies made under this phase of the research program are discussed under the appropriate subject heads in this report. Published reports of the

specialists' findings, interpretations, and suggested applications are listed under Publications.

Services to Education

One of the ways in which the Office has traditionally promoted the cause of education is through service to State and local school systems. In rendering this service the Office provides information, consultation, and advice on education at the different levels and in fields.

ADMINISTRATION

One of the most significant educational developments in the 20th century is the continued rise in leadership of State departments of education. This movement has been accentuated in the past few years and is reflected in the growing stature of the professional staffs of these departments, the higher level of salaries attached to the positions, and the recognition by local school officials, by college and university staffs, and by the public in general of the expanding program of services which the departments are now giving. No small part of this increase in leadership has been due to the efforts of the departments themselves. The Office of Education has assisted them by making nationwide surveys and studies which define the role of State agencies in the educational scheme and delineate the responsibilities of personnel in the departments in the various areas of service.

During the 1956 fiscal year the Office of Education engaged in several nationwide cooperative studies which have bearing on policy and good practices in State school administration. Studies dealing with the responsibilities of the State departments of education for school plant services and for pupil transportation were published during the year.

During the year the Office, in cooperation with the American Association of School Administrators, the Association of School Business Officials of the United States and Canada, the Council of Chief State School Officers, the Department of Rural Education, the National Education Association, and National School Boards Association, completed a study entitled, "Financial Accounting for Local and State School Systems." Nearly 200 representatives of the cooperating organizations participated in 2 national and 8 regional conferences which shaped the financial accounting handbook. The handbook will be the basic guide in the United States for financial accounting for local and State school systems. To reflect accurately the condition and progress of education at local, State, and national levels, educational data must be a matter of record at its source and must be recorded in terminology that means the same thing from place to place. This

handbook will serve education everywhere as the guide for recording financial data so that it will have the same meaning to all. It will greatly improve the basis for educational research, the comparability of educational information, and the reliability of State and national summaries.

ORGANIZATION

The establishment of soundly organized local school districts continued to be a major problem in American education—in 1955 there were over 59,000 school districts in the Nation; of the total number nearly two-thirds had fewer than 10 teachers, over half were organized for elementary school purposes only, and more than 1 of every 7 did not operate a school of any kind. Practicable approaches to dealing with this problem effectively were the concern of a special Office project which was virtually completed during the year, with publication of the report scheduled in fiscal year 1957. This project is the first major school district reorganization study undertaken by the Office of Education since completion of the Local School Units Project in the late 1930's.

Coincident with carrying on the project, the Office rendered consultive services to legislative councils, special commissions, State departments of education, and other agencies in a number of States where efforts were being made to develop more effective reorganization programs.

The rapid growth of the National School Boards Association and of State associations and an increasing recognition of the importance of effective school board stewardship have emphasized the need for research on statutory provisions governing local school boards and the procedures employed by them in carrying out their responsibilities. To meet this need a series of studies was launched; the first in the series was largely completed in 1956, and a report of the study is scheduled for publication in fiscal 1957.

SCHOOL FINANCE

Throughout the year the Office provided service and information on financing the schools. More and more difficulties of financing the programs of education became evident. To help finance the schools the State legislatures have been approving larger appropriations and enacting laws which provide improved methods of allocating State funds to the schools. Local boards of education have also been approving larger budgets, securing larger amounts from the general property tax, and seeking new sources of local revenue for the public schools. Increases in enrollments, demands for additional school services, and the need for the new school buildings indicate that the

methods of financing the schools will continue to require more attention in the months ahead.

SCHOOL HOUSING

The Nation is continuing to spend more than \$2 billion a year for public elementary and secondary school construction. This annual expenditure, however, is not sufficient to erase the existing deficit of classrooms, to house the increasing enrollment, and to replace the schools that become obsolete each year.

Activity within the States indicates a trend toward improving the pattern of financing school construction, through such measures as district mergers, increasing legal bonding limits, and State financial assistance through grants and loans.

The Office of Education promoted and participated in cooperative planning by educators, architects, and lay groups to improve the educational adequacy of new facilities.

One of the major school plant problems, which is still only partly solved, is the acquisition of adequate and properly located sites to accommodate the ever-increasing requirements for new schools to serve a growing and mobile school population.

A recent Office study of State school plant services revealed a trend toward the provision of more and better school plant services and increased leadership by State departments of education.

ELEMENTARY EDUCATION

The Office has continued to give leadership to professional and lay organizations concerned with education at the elementary level, to elementary staff members in State departments of education, to supervisors in county schools, and to individuals and groups in local communities through in-service activities in town or city, or sponsored by colleges and universities. This leadership has been concerned with rounding up sources of information as well as specific items of information on many problems, and interpreting school problems and programs to parents and to teachers needing such help.

One of the important ways of identifying major problems and of working on these problems has been the Annual Conference on Elementary Education held this year with 62 national professional and lay organizations represented. The theme of the conference was "Working Together for Children in 1956."

Research was used in such studies as *Status of Physical Education for Children of Elementary School Age in City School Systems*; and what some States have been doing about the recruitment of teachers. Reports of these studies are scheduled for publication in fiscal 1957.

SECONDARY EDUCATION

During fiscal year 1956 the Office devoted considerable time and attention to the pressing manpower problems in such professional fields as science, mathematics, and teaching. Office of Education specialists in mathematics and science worked closely with such voluntary professional organizations and government agencies as the American Association for the Advancement of Science, the National Science Teachers Association, the National Science Foundation, and the President's Committee on Science and Engineering. Recommendations were made for the guidance of action programs to obtain more qualified persons in the shortage areas through cooperative efforts to improve the quality of instruction programs and to increase the number of teachers in secondary schools. Studies were made of science and mathematics in public high schools. In addition, plans were made for a survey of the teaching loads and the preparation of science and mathematics teachers, to be made by the Office in cooperation with State departments of education and the National Science Foundation.

In conjunction with the Interdepartmental Committee on Children and Youth, the Office of Education, the Department of Labor, and the Employment Service studied various problems associated with the transition of youth from school to work. An Office bulletin offers advice useful to school administrators interested in initiating and improving work experience education programs in the high schools.

At the request of the Council of Chief State School Officers, the Office made a study of the curriculum responsibilities of State departments of education. This study will be carefully analyzed by the study commission of the council in an effort to improve leadership responsibilities of State education departments and relationships with local schools. The study was a joint undertaking of the Elementary and Secondary Sections.

To find ways of effectively coping with the pressing problems in secondary schools the Office called a conference of selected State directors of instruction to discuss (1) current developments in secondary education, (2) ways of improving secondary school programs, (3) research being carried on by State education departments, and (4) the program of the Office of Education and ways in which the Office can more effectively assist State education officials.

ADULT EDUCATION

During the year Office staff members worked with national organizations and State and regional groups on the role of adult education in promoting better health, improved human relations, and vocational efficiency and adjustment, including such organizations as the National Association for Practical Nurse Education, the Virginia

Joint Conference of Vocational and Industrial Arts Services, and Alpha Kappa Mu Honorary Society. The Office continued to cooperate with the Section on Fundamental and Literacy Education of the Adult Education Association on a variety of activities in developing a national commission on literacy, and with the National Council on Naturalization and Citizenship on the education of the foreign born.

The Office assumed responsibility for organizing and conducting the Group and Work Sessions on Education of the Federal State Conference on Aging, and for writing the conference report.

INTERGROUP EDUCATION

The Office of Education continued to cooperate with the National Educational Association and the American Teachers Association in promoting the use of the kit and packet of materials on intergroup education. Staff members participated in several conferences on planning the extension of intergroup education.

In addition, consultive services were rendered to the Council of National Organizations, National Congress of Colored Parents and Teachers, Advisory Committee on Parent Education of the National Council of Churches of Christ in the USA, and to the Steering Committee of the Tuskegee Institute Self-Study.

EXCEPTIONAL CHILDREN

Programs for the education of exceptional children in the United States have been increasing rapidly, but their expansion is retarded by such factors as lack of qualified teaching personnel and the need of more knowledge about these children and their deviations. Within the last year the Office of Education has done something about both of these problems.

For several years the Office has been giving leadership to a nationwide study, "Qualification and Preparation of Teachers of Exceptional Children." The general purpose of the study is to aid in securing for the Nation's schools the necessary number of teachers and teachers with the best possible qualifications. Specifically it is hoped that the findings will contribute to a better understanding of (1) competencies needed by teachers and other special education personnel and (2) the kind of experiences and professional preparation believed to contribute to effective work with the various types of exceptional children. To this Office-directed project more than 2,000 leading educators have contributed either through membership on one of 15 committees or by providing information through inquiry forms.

During the year a national spotlight was turned on the problems of educating the mentally retarded. The Office is now giving leadership to the solving of some of these problems, not only through the

special project on teacher preparation but also through cooperative research on various aspects of mental retardation, mentioned earlier.

AUDIOVISUAL EDUCATION

The use of audiovisual educational materials continued to expand during the year with attention being given experimentally to the use of these materials, particularly sound motion pictures, in alleviating the shortage of qualified teachers. During the year a trend toward a closer integration of audiovisual and printed materials with school curriculums became apparent.

The Office of Education continued to provide services relating to the audiovisual materials of the Federal Government. It cataloged the 5,098th Government film for Library of Congress catalog cards and issued a 650-page catalog, *Government Films for Public Educational Use*.

As part of its program to strengthen State and local educational resources, the Office prepared its 5th edition of a directory of State and local sources of educational films, which identifies and describes the resources and services of 3,300 16mm film libraries.

In line with its overall policy of making fact-finding comparative studies of the functions, responsibilities, and services of the various State departments of education, the Office took preliminary steps (including the preparation of a questionnaire) toward such a study of audiovisual education in the various State governments. The study will be completed and published in fiscal year 1957.

The Office of Education, with a complete file of all Government films, continued to provide a central reference service on the films of all agencies; and, in addition, to answer miscellaneous inquiries (weekly average 150) for audiovisual information.

RADIO-TELEVISION

Throughout the Nation there was convincing evidence of interest in the educational uses of radio and television in the increase in number of stations and number of courses offered on the air. The number of radio stations owned and operated by colleges, universities, and school systems increased from 160 in 1955 to 176 in 1956, and the number of noncommercial educational TV stations, from 15 in 1955 to 26 in 1956. Some of the TV stations were supported by public funds; others either totally or in part by foundations and subventions of funds; and still others by local communities. There was also a general increase in the number of courses offered and the number of students enrolled. At 60 institutions 400 courses were available for university credit. At a single Junior College of the Air 4,000 students were registered for evening courses.

The Office served educational institutions, public and private, with materials, information, and advice on conducting their programs. Office cooperation with the Department of Defense, Department of Treasury, Department of State, United States Information Agency, Bureau of Standards, Library of Congress, International Cooperation Agency, and similar government agencies has brought about a successful relationship in dealing with common problems by combined effort in educational matters affecting these various services.

International radio and television received increased attention. The United Nations, UNESCO, individual foreign broadcasting systems in Europe, the Near and Middle East, Africa, Australia, South America, and the Far East regularly exchange educational ideas and program offerings with the Office.

CIVIL DEFENSE EDUCATION

The most significant activities of the Civil Defense Education Project carried on in the Office have been built around formal agreements with State departments of education in Connecticut, Michigan, and California for the operation of civil defense education pilot centers. These centers have developed instruction materials for use by elementary and secondary school teachers. The materials listed below were prepared by teachers, supervisors, administrators, and curriculum specialists in accordance with established procedures and policies of each State:

Connecticut :

- (1) Education for Natural and Wartime Emergencies
- (2) Curriculum Guide for Emergency Education

Michigan :

- (1) Civil Defense in the Classroom
- (2) Film strip for civil defense in schools

California :

- (1) Civil Defense for Personal and Family Survival
- (2) Some Suggestions for Introducing Civil Defense Into the Curriculum

Materials developed in the three States were reviewed in a 5-day conference sponsored by the Office of Education in cooperation with the Federal Civil Defense Administration in Battle Creek, Mich. The conference was attended by representatives of the States and larger city school systems. Recommendations and suggestions of this group have been incorporated in a handbook on civil defense for schools. It contains information and suggestions for school administrators and teachers planning protective measures in school civil defense.

GUIDANCE AND STUDENT PERSONNEL SERVICES

On July 1, 1955, the Office of Education expanded its guidance and student personnel services to (1) assist local and State authorities

in initiating or expanding services suitable to their needs, (2) cooperate with interested public and private schools and agencies, (3) serve as a clearinghouse for information especially adapted to school use, and (4) prepare and issue professional materials.

During the year the Office prepared and distributed pamphlets and leaflets on occupations, guidance programs, lists of guidance officials, State certification requirements, and testing programs. Staff members carried on continuing research in such selected guidance areas as the problem of "dropouts," building needs for guidance services, and summer and academic-year offerings at colleges and universities in the preparation of guidance workers.

The Office also worked with agencies and groups, both private and governmental, concerned with improving services in this field. For instance, staff members cooperated with the Department of Labor in developing studies and providing information; with the Departmental Committee on Juvenile Delinquency, a subcommittee of the Inter-Departmental Committee on Children and Youth; and with the representatives of the Atomic Energy Commission, the American Medical Association, the American Personnel and Guidance Association, the National Education Association, the National Association of Chiropodists, and the American Pharmaceutical Association in developing occupational information material for later publication.

SERVICES TO LIBRARIES

In cooperation with the State library agencies, the Office of Education made a nationwide survey of the structure and control of publicly supported library services at the State level. The basis of the study was an analysis of the State laws as of January 1, 1956, supplemented by fundamental information from political science, educational administration, and library science.

The Office also provided library data and consultive services to the Coordinating Committee on the Revision of Public Library Standards of the American Library Association. This undertaking should result in extended and better public library service for the people of the United States since the new standards emphasize the performance of libraries rather than per capita costs and quality of service rather than quantity. The committee foresees a network of public library services which will reach every person in the United States. These services will be found at the community outlets in village, town, and rural areas, backed up by the large central library of city or county, and with the State library at the apex of the cooperative system. Larger units of library administration are called for in the interest of economy and efficiency of operation.

VOCATIONAL EDUCATION

In fiscal year 1956 the Office of Education administered grant-in-aid programs providing more than \$33 million for vocational education in the States and Territories under the Smith-Hughes, George-Barden, and supplementary acts. This total is an increase over the amount available in 1955. Most of the increase, \$21½ million provided under the George-Barden Act, was used to extend vocational education to communities that had not previously had programs. Table 3, column 4, page 195, shows the distribution of funds for vocational education, by States, in fiscal year 1956.

The Office of Education issues an annual digest of the statistical and financial reports made by the State boards of vocational education to the Office covering the program provided for by the Smith-Hughes and George-Barden Acts. The digest of State reports, which shows expenditures made and work done in vocational education for the previous year ending June 30, is ordinarily available in March of the succeeding year. The digest of State reports for fiscal 1956 is in preparation.

The Office continued its cooperative working relationships with the States in the further development and improvement of vocational education. Federal-State attention focused principally on means of alleviating the teacher shortage, on the preparation of teachers; improvement of supervisory practices; and on making instruction more effective. Two phases of program development were of particular concern to the Office: The contribution that vocational education can make to the solution of special problems of low-income families; and the significance of technological, economic, and social changes to vocational training.

A revision of the Statement of Policies for the Administration of Vocational Education based on experience and interpretations of the current acts and policies was undertaken during 1956, and a preliminary draft was submitted to State officials for review. The policy statement will also be reviewed by a special committee of State directors of vocational education and executive officers of State boards for vocational education before it is approved by the Commissioner of Education.

Program specialists in agriculture, distributive occupations, home economics, and trade and industry made official visits to the States to review vocational problems and assist with the solution of problems as requested.

During the year consultants were invited to work with staff members on a number of studies designed to improve vocational education. The studies dealt with the training needs of persons employed in outside selling; problems of small businesses, and the training needs of

employers and managers of such enterprises (distributive education) ; related instruction and supervisory training in trade and industrial education ; and agricultural education for out-of-school young farmers. Published reports of these studies are intended to improve school offerings and to expand vocational education services.

Continued emphasis was given to the professional improvement of administrative and supervisory personnel and to the emerging problem areas in the States in regional conferences for State personnel. Separate conferences were conducted for workers in agricultural, distributive, home economics, and trade and industrial education. Through discussion of questions relating to the operation, expansion, and improvement of the program these conferences developed a continuing awareness among leaders of responsibilities and improved practices in program supervision and administration.

Recognizing the need for trained workers for the rapidly growing labor force in distributive occupations and the contribution that vocational education can make in preparing people for these occupations, many groups and individuals sought information about the Federal-State program of distributive education. As a result of this increased interest and the desire of business to cooperate in expanding and developing this program, program specialists in distributive education worked with trade and business groups and individuals concerned with the business of distribution. A 3-day teacher-training clinic in textile fibers for teachers-coordinators in distributive education was conducted in the Central region.

Staff specialists in home economics education worked individually and in conferences with teachers, supervising teachers, teacher trainers, city and State supervisors, and teacher training institutions on means of increasing the supply of home economics teachers, of helping former teachers who return to the field, on improving student-teacher experiences, and on other ways of strengthening the program.

Specialist in home economics education met with a representative group of college teachers of foods and nutrition and administrators to consider means of strengthening and improving the teaching of foods and nutrition. This was a followup of a conference of this same group held the previous year. Followup conferences were also held in the several regions for college teachers in foods and nutrition to consider course offerings in foods and nutrition in relation to the changes in problems of family living and in the production and distribution of foods, and the significance of these changes to food and nutrition programs and educational procedures.

A report of the project, *Experiences With Infants in the Preparation of Home Economists*, begun in 1955 was issued jointly by the Home Economics Education Branch and the Children's Bureau. The

report represents a first step toward better understanding of common problems in the preparation of professional workers who offer services to children and their families.

To provide training for potential leaders and give participants an opportunity to identify and evaluate basic concepts of leadership, the Office organized a Leadership Training Conference in Trade and Industrial Education which was attended by more than 60 persons from the States, Puerto Rico, Hawaii, the Virgin Islands, and Alaska. A report of the conference was distributed to the States.

A group of persons engaged in trade and industrial supervisory development programs were brought together by the Office to study means of developing supervisory personnel. The findings of the group on the nature and structure of successful programs should be helpful to others in solving similar problems. A report of the conference was distributed to the States.

A systematic followup of the work conference on "Research and Studies in Trade and Industrial Education" was made to collect data on research in trade and industrial education. A report "Research and Studies in Trade and Industrial Education" was developed to assist the States in research essential to developing programs of trade and industrial education capable of keeping pace with technological advances in our continually expanding economy.

Since farming is becoming more highly mechanized, the farmer needs to have special training in the operation and maintenance of his equipment. Instruction in this important area was given special attention in departments of vocational agriculture. Members of the agricultural education staff during the year assisted States in planning and conducting special workshops for teachers of agriculture to assist them in the further development and improvement of the instruction in farm mechanics that is offered in local schools.

HIGHER EDUCATION

Research

Five research studies in higher education were carried on during the year: (1) The costs incurred by students in attending college; (2) the extent and causes of the withdrawal of students from college before completing their programs of studies; (3) the status of planning in the area of college and university facilities; (4) staffing the Nation's schools; and (5) student financial assistance.

The study of what it costs students to attend college was based on the expenditures of 15,500 students in 110 colleges and universities. The study of student attrition was based on the experiences of 13,000 students who entered the freshman class in 1950 in 147 institutions. Reports on these studies will be published in fiscal year 1957.

Three of the projects were initiated in fiscal year 1956 as a part of the expanding research program of the Office. The study of college and university facilities sought answers to three major questions: (1) What are the extent and the character of the additional enrollment that can be accommodated with existing facilities? (2) what facilities have been constructed within the past 5 years and how were they financed? and (3) what additional facilities are planned for construction before 1970? All colleges and universities listed in the Higher Education Directory were asked to respond to the questions. The project is scheduled for completion in fiscal year 1957.

A pilot project was undertaken to explore appropriate research targets and techniques to be employed in studies of problems relating to the staffing of the Nation's schools and colleges. The project developed plans in anticipation of a major research effort to study the teacher personnel of the Nation, and it also developed and tried out procedures and instruments to be used in such a research effort. Further activity in this area will depend on the future development of the extended research program of the Office.

The student financial assistance project is concerned primarily with institutional assistance resources and their utilization. The study also deals with such topics as sources of funds for undergraduate scholarships and graduate fellowships, size of grants, distribution of graduate fellowships by fields of study, availability and use of student loans, loan fund practices, student employment, and the relationships between the size of scholarship grants, tuition fees and living costs, and the number of students who received grants. This study will also provide the basic materials for new directories of undergraduate scholarships and graduate fellowships and for a comprehensive study of student assistance. The results of the study will be of interest and value to many groups interested in higher education, such as college administrative officers, business groups, State and Federal officers interested in scholarship programs, parents, prospective college students, and high school counselors.

Services and Studies

In addition to instituting and carrying on the research projects in higher education, described under Research, the Office completed and published a comprehensive study of education for the professions. It was the first such report to be issued in the United States since 1900. The Office also reviewed and analyzed the present status of statewide and regional interinstitutional studies of higher education and published the report of the study in the March 1956 issue of the periodical, Higher Education. A new issue of Accredited Higher Institutions was prepared and is scheduled for publication in 1957. The Education Directory, 1955-1956, Part 3, Higher Education, and the periodical, Higher Education, were also published.

The Office gave consultive service to State higher education surveys and planning in Mississippi, Louisiana, Nevada, and Florida, and advisory service to higher education institutes, conferences, and associations in the development of their program and activities.

The Office also discharged its legal responsibility for the annual inspection of Howard University; rendered advisory service to the Department of Justice, Immigration and Naturalization Service, on the approval of schools which foreigners on student visas may attend; advised the Housing and Home Finance Agency on whether applicants for college housing loans met the legal requirement for loans; and added the American Association of Nurse Anesthetists to the Commissioner's list of 30 nationally recognized accrediting agencies and associations which he is required to publish.

Administration of Grants

For the year ending June 30, 1956, the Office administered a total of \$5,051,500 to land-grant colleges and universities. The Office responsibility in this program is to certify that each State and Territory is entitled to receive its share of the annual appropriation and the amount it is entitled to receive. See table 3, column 3, for distribution of funds by States.

INTERNATIONAL EDUCATION

American education has an increasingly important function in international affairs. The Office has received enthusiastic support from the profession in recruiting educators for assignments overseas and in placing and training foreign educators in the United States. It is being requested to cooperate with public and private agencies in an increasing number and variety of international educational activities.

One of the recent developments in international education is a rapidly increasing interest in revising the American curriculum at all levels to introduce Americans to all the peoples of the world, for it is estimated that at any one time between 2 and 3 million Americans are living, working, or traveling abroad, in every country in the world. Our schools and colleges are calling on the Office for help in developing techniques for training Americans to live on this new American frontier.

International Educational Relations

The Office has a statutory responsibility for studying, interpreting, and reporting on developments in education abroad. This is one of the oldest activities of the Office, and today is growing rapidly because of the new importance of education as an instrument of foreign policy, and also because of the new role of the United States as a world leader.

During the year comparative educational research and specialized educational services in the Office provided authoritative information for the public and contributed to the development of international understanding. Stress was laid on research and services which States, groups, or individuals would find difficult, if not impossible to carry out.

Studies were made of education in other countries, including Taiwan and Mexico. Basic work was completed on the first edition of a new International Education Yearbook, entitled "Education for Better Living," to be published in fiscal 1957. Important research was launched on education under Communism, and the manuscript, "Education in the Soviet Union," is now ready for publication. One staff member visited ministries of education in Germany to obtain basic information on a study to be published in 1957. Studies of educational terminology used in the U. S. A., in Haiti, in Brazil, and in Spanish America were prepared. Work in this field sparked the idea for glossaries in the World Survey of Education published by UNESCO. Teaching aids for developing international understanding to meet the increasing demands from schools and libraries in the United States as well as from foreign countries were issued.

University and college registrars, State boards of licensure, the United States Civil Service Commission, and other Federal agencies called upon the Office to evaluate the credentials of 2,828 foreign students. This information was essential to the matriculation of these students in United States universities and colleges.

The Office advised with the Veterans Administration on the applications of some 100 foreign educational institutions for approval to train veterans under the provision of the Veterans Readjustment Assistance Act of 1952 (P. L. 550, 82d Congress).

The Educational Materials Laboratory, which was developed with the cooperation of members of the American Textbook Publishers Institute, added 591 books to its collection as well as pamphlets, bulletins, and materials developed in educational missions of the International Cooperation Administration. During the year the laboratory enabled some 600 visitors to examine representative textbooks and materials used in United States schools. The visitors included foreign embassy staff, other foreign visitors, United States personnel preparing to work in technical assistance programs abroad, and United States educators and laymen.

The Clearinghouse, established at the request of the Department of State, maintains a file of persons entering and leaving the United States under the various Federal Government-sponsored exchange programs. At the end of the fiscal year a total of 36,000 names were

on file, an increase of 15,000 over the 1955 total. The Clearinghouse met requests from the Department of State for approximately 190 statistical tables with these data. In addition, the Clearinghouse began a file of American Dependents Schools abroad containing approximately 1,000 listings.

The Office coordinated the preparation of reports on educational subjects required by United States participation in international organizations. These reports concerned decisions taken by governments with respect to education and provided background data for technical groups at international conferences. Examples of such reports and background data were: "Elementary Education in the United States" for UNESCO's World Survey of Education; "Vocational Training in Agriculture" for the use of the International Labor Conference in preparing an international recommendation on this subject; and "School Inspection (Supervision)" for the UNESCO—International Bureau of Education Conference on Public Education. Office specialists also served on U. S. delegations to international conferences.

Educational Exchange and Training

Under the Teacher Education Program, which the Office conducts in cooperation with the International Educational Exchange Service of the Department of State, Office staff arranged programs for the training of 262 foreign teachers in the methods and techniques of American education. Approximately 80 percent of them were concerned with elementary, secondary, and vocational education, and English as a second language; 20 percent participated in an American civilization project. A workshop was held at the University of Puerto Rico for 47 educators from Caribbean countries.

Under the Teacher Exchange Program school authorities in 46 States, 3 Territories, and the District of Columbia cooperated with the Office in the placement of 502 American and foreign teachers for 506 available teaching opportunities: 156 Americans exchanged jobs with 156 foreigners; 104 Americans were recruited for specific teaching vacancies; 71 Americans attended summer seminars in France, Germany, and Italy; 15 teachers from other lands were assigned to teaching positions in the United States.

The Technical Training Program provided for specific training of teachers and other educators from underdeveloped areas to support educational projects in their own countries. These projects were developed by American technicians to assist cooperating foreign governments in obtaining economic and social progress through improvement of education, health, and agriculture. Cooperating with the International Cooperation Administration, the Office arranged technical training for the academic year for 600 educators from 39 coun-

tries. In this program particular emphasis was placed on practical training and experience.

Educational Missions Abroad

United States Technical Assistance programs were aided by the Office in the recruitment of 85 education specialists for assignments in overseas missions of the International Cooperation Administration. The Office furnished essential technical support to these educators by providing packets of educational publications, appraising lists of instructional materials and equipment, and rendering professional advice on specialized problems.

The staff of the Office participated in on-the-spot surveys of educational programs overseas, took part in international conferences, and consulted with the education officials of many other countries on professional matters of common interest.

SCHOOL ASSISTANCE IN FEDERALLY AFFECTED AREAS

One of the major functions of the Office of Education is the administration of two laws that provide Federal aid to education in districts that have been affected by Federal activity. They are Public Laws 874 and 815, both passed by the Eighty-first Congress in September 1950.

For fiscal year 1956 the Congress appropriated, under Public Law 815, a total of \$33,900,000, which was added to the continuing appropriation, and under Public Law 874, a total of \$90,000,000. Columns 5 and 6, table 3, page 195, show the distribution of funds to States made under both laws during the year.

Public Law 874 authorizes Federal contributions toward the operating costs of public elementary and secondary schools in districts that feel the Federal presence in one or more of these ways: As a loss of revenue through the tax-exempt status of Federal properties; or as added school costs either (1) because of the attendance of children who live on Federal property or whose parents are employed on such property or (2) because of a sudden and substantial increase in school enrollment growing out of Federal-contract activities.

Public Law 815, as amended, authorizes financial assistance for building schools in areas affected by Federal activity, for the construction of temporary schools in certain situations, and for construction of schools on Federal bases where necessary to house school children.

With the completion of the sixth year of Federal assistance to schools in federally affected areas under these two laws the number of school districts participating has increased to 2,860.

Annual payments to federally affected districts to aid in meeting current operating expenses for the fiscal year amounted to approximately \$86 million. Payments were made on behalf of some 980,000 federally connected pupils claimed by school districts which had a total attendance of about 6,200,000 students. The affected districts educate approximately one-fifth of all the Nation's public school children.

The number of school construction projects which had been approved by the close of fiscal year 1956 had passed the 3,000 mark. A total of \$609 million in Federal funds had been allocated to some 3,100 school construction projects approved by June 30. These funds together with approximately \$260 million in local funds which had been added to the projects will be sufficient to house some 700,000 schoolchildren.

In the spring of the year the President made recommendations to the Congress for an extension of the program for school construction in federally affected areas. This extension in time was made essential principally by the substantial program of military housing which had been enacted by the Congress and which will create a demand for additional classroom space in federally affected areas.

A separate report was made to the Congress, as required by law, covering the administration of this program and providing detailed information on receipts and disbursements of Federal funds, school districts participating, and other phases of operation.

Major Publications Off the Press in Fiscal Year 1956

Clerical and Custodial Staff in Public Secondary Day Schools

Course Offerings in Guidance

Current Expenditures per Pupil in Public School Systems—Large Cities, 1954–55

Current Expenditures per Pupil in Public School Systems—Small and Medium-Sized Cities, 1954–55

Digest of Reports of State Boards of Vocational Education

Earned Degrees Conferred by Higher Educational Institutions, 1954–55

Educational Directory, 1955–56

Federal Government and States, Part I

Counties and Cities, Part II

Higher Education, Part III

Education for the Professions

Education in Mexico

Engineering Enrollments and Degrees, 1955

Enrollment (Opening Fall) in Higher Education Institutions, 1955
Enrollment, Teachers, and Schoolhousing—Fall Statistics, 1955—
Full-Time Public Elementary and Secondary Day Schools
Fifth Annual Report of the Commissioner of Education Concerning
the Administration of Public Laws 874 and 815, June 30, 1955
Guide for Part-Time Instructors—Distributive Education for Adults
National Leadership Development Conference—Trade and Industrial
Education, 1956
Offerings and Enrollments in Science and Mathematics in the Public
High Schools
Public Vocational Education Programs—Characteristics of Programs
Under Provisions of the Federal Vocational Education Acts
Radio and Television Bibliography
Report to the President by the Committee for the White House
Conference
Resident, Extension, and Adult Education Enrollment in Institutions
of Higher Education
School Facilities Survey—Report of the Long-Range Planning Phase
Selected References on School Finance
Selection and Training of Part-Time Instructors—Distributive Edu-
cation for Adults
State Policies and Regulations Affecting Junior High Schools
The State and Publicly Supported Libraries
State School Plan Services
Supervision in Rural Schools—A Report of Beliefs and Practices
Teachers of Children Who Are Deaf
Training for Quantity Food Preparation
Work Experience Laboratories—Distributive Education for Youth
Periodicals
Higher Education (9 issues, September 1955–May 1956)
School Life (9 issues, October 1955–June 1956)

Table 1.—School enrollments in the continental United States, 1954-55 and 1955-56

[Office of Education estimates]

School	Year	
	1955-56	1954-55
Kindergarten through Grade 8:		
Public school system.....	24,588,000	24,091,500
Private and parochial schools.....	3,768,000	3,506,200
Residential schools for exceptional children.....	71,500	65,000
Model and practice schools in teacher training institutions.....	38,500	38,300
Federal schools for Indians.....	32,200	27,400
Federal schools under Public Law 874.....	16,000	9,600
Total elementary.....	28,514,200	27,738,000
Grades 9-12:		
Public school system.....	6,860,000	6,582,300
Private and parochial schools.....	823,200	774,800
Residential schools for exceptional children.....	12,200	11,100
Model and practice schools in teacher training institutions and preparatory departments of colleges.....	41,000	40,500
Federal schools for Indians.....	9,800	12,300
Federal schools under Public Law 874.....	900	1,000
Total secondary.....	7,747,100	7,422,000
Total elementary and secondary.....	36,261,300	35,160,000
Higher education:		
Universities, colleges, professional schools, including junior colleges and normal schools.....	2,996,000	2,755,000
Total higher education.....	2,996,000	2,755,000
Other schools:		
Private commercial schools (day and evening).....	450,000	144,000
Nurse training schools (not affiliated with colleges and universities).....	91,400	69,500
Total other schools.....	541,400	213,500
Grand total.....	39,798,700	38,128,500

Table 2.—Supply and demand for elementary and secondary public and nonpublic school teachers, 1955-56

Item	Elementary and secondary
<i>Supply</i>	
Total teachers 1954-55 ¹	1,201,800
Less emergency teachers 1954-55.....	91,200
Total qualified teachers 1954-55.....	1,110,600
Less 7.5 percent turnover.....	83,300
Qualified teachers returning for 1955-56.....	1,027,300
Emergency teachers qualifying for 1955-56.....	25,000
New supply of qualified teachers (79 percent of elementary and 56 percent of high school teachers trained in 1954-55).....	63,400
Total qualified supply 1955-56.....	1,115,700
<i>Demand</i>	
Total teachers 1954-55.....	1,201,800
Teachers needed to meet increase in enrollment in 1955-56 ¹	55,200
Total demand 1955-56.....	1,257,000
Shortage of qualified supply (see note below).....	141,300

¹ The number of elementary and secondary school teachers in public schools, in the fall of 1954, was 1,065,803 (Office of Education Circular No. 417, Revised). To this must be added the number in nonpublic schools (private and parochial), in model and practice schools of colleges and universities, in residential schools for exceptional children, and in schools operated under Federal auspices. The number of teachers in this group of schools was estimated as 136,000, on the basis of 1 teacher to every 33 pupils—the ratio prevailing in the Roman Catholic schools which enroll 88 percent of the pupils in this group.

Table 3.—Grants to States: Office of Education, fiscal year 1956 ¹

States, or Territories and possessions	Total	Colleges of agriculture and the mechanic arts	Cooperative vocational education	School construction (P. L. 815)	Maintenance and operation of schools (P. L. 874)
Total.....	\$208, 633, 750	\$5, 051, 500	\$33, 199, 226	² \$89, 176, 815	³ \$81, 206, 209
Alabama.....	4, 441, 564	100, 541	898, 437	2, 424, 208	1, 018, 378
Arizona.....	2, 659, 106	77, 477	180, 844	1, 494, 698	906, 087
Arkansas.....	2, 575, 559	89, 048	657, 340	1, 190, 397	638, 774
California.....	30, 958, 570	175, 599	1, 620, 978	14, 817, 260	14, 344, 733
Colorado.....	4, 551, 669	83, 218	284, 221	2, 031, 178	2, 153, 052
Connecticut.....	3, 015, 738	90, 023	315, 367	1, 413, 804	1, 196, 544
Delaware.....	373, 261	73, 173	165, 000	92, 098	42, 990
Florida.....	4, 473, 567	97, 644	514, 850	2, 098, 100	1, 762, 973
Georgia.....	5, 727, 555	104, 360	964, 335	2, 994, 183	1, 664, 677
Idaho.....	1, 009, 966	75, 872	187, 580	304, 253	442, 261
Illinois.....	4, 687, 295	156, 905	1, 460, 900	1, 081, 100	1, 988, 390
Indiana.....	2, 453, 746	109, 245	871, 495	720, 916	752, 090
Iowa.....	1, 175, 270	96, 146	741, 157	92, 703	245, 174
Kansas.....	5, 289, 763	89, 006	484, 204	1, 349, 928	3, 366, 625
Kentucky.....	2, 122, 618	99, 375	911, 771	363, 039	748, 433
Louisiana.....	1, 223, 429	96, 769	652, 621	92, 936	381, 103
Maine.....	1, 232, 956	79, 115	189, 789	329, 948	634, 104
Maryland.....	10, 128, 904	93, 372	397, 919	6, 256, 533	3, 381, 080
Massachusetts.....	2, 196, 372	116, 789	637, 684	177, 806	1, 264, 093
Michigan.....	7, 292, 818	133, 559	1, 181, 820	5, 338, 495	638, 944
Minnesota.....	1, 615, 571	99, 751	762, 446	634, 342	119, 032
Mississippi.....	1, 485, 190	91, 735	826, 110	137, 195	430, 160
Missouri.....	4, 183, 467	109, 448	929, 047	1, 981, 037	1, 163, 935
Montana.....	1, 532, 877	75, 896	189, 168	1, 019, 371	248, 442
Nebraska.....	1, 954, 805	83, 222	379, 037	531, 019	961, 527
Nevada.....	1, 648, 914	71, 597	141, 440	827, 537	608, 340
New Hampshire.....	777, 843	75, 319	160, 088	135, 199	407, 237
New Jersey.....	2, 690, 191	118, 233	643, 742	508, 546	1, 419, 670
New Mexico.....	6, 266, 140	76, 795	189, 715	4, 569, 489	1, 430, 141
New York.....	5, 717, 475	217, 934	2, 070, 072	1, 257, 018	2, 172, 451
North Carolina.....	2, 584, 204	110, 518	1, 288, 053	681, 809	503, 824
North Dakota.....	553, 882	76, 181	256, 940	27, 691	193, 070
Ohio.....	7, 545, 160	149, 269	1, 477, 593	2, 788, 373	3, 129, 925
Oklahoma.....	8, 215, 876	92, 278	582, 057	4, 394, 929	3, 146, 612
Oregon.....	1, 178, 618	85, 176	344, 590	116, 378	632, 474
Pennsylvania.....	3, 477, 117	174, 720	1, 807, 730	185, 714	1, 308, 953
Rhode Island.....	1, 313, 625	77, 899	126, 458	323, 508	785, 760
South Carolina.....	2, 194, 223	91, 118	656, 029	592, 384	854, 692
South Dakota.....	1, 744, 954	76, 511	253, 114	587, 185	828, 144
Tennessee.....	3, 198, 899	102, 835	958, 503	1, 075, 163	1, 062, 398
Texas.....	12, 954, 224	146, 921	1, 671, 308	5, 913, 353	5, 222, 642
Utah.....	2, 152, 490	76, 871	172, 225	1, 157, 385	746, 008
Vermont.....	279, 944	73, 768	164, 761	-----	41, 415
Virginia.....	16, 392, 764	103, 104	857, 026	8, 410, 911	7, 021, 723
Washington.....	7, 937, 557	93, 731	474, 773	3, 265, 362	4, 103, 691
West Virginia.....	808, 180	90, 006	546, 818	91, 505	79, 851
Wisconsin.....	1, 420, 260	104, 260	819, 313	157, 772	338, 915
Wyoming.....	784, 313	72, 898	159, 443	287, 586	264, 386
District of Columbia.....	106, 999	-----	106, 999	-----	-----
Alaska.....	4, 018, 213	71, 283	43, 378	741, 162	3, 162, 390
Hawaii.....	3, 520, 764	74, 986	166, 202	2, 031, 670	1, 247, 906
Puerto Rico.....	751, 456	50, 000	618, 907	82, 549	-----
Virgin Islands.....	37, 829	-----	37, 829	-----	-----

¹ On a checks-issued basis. Does not necessarily agree with allotments or expenditures for a given fiscal year.

² Does not include \$7,525,000 paid to Housing and Home Finance Agency.

³ Does not include \$735,255 paid to Air Force, \$2,677,462 to Army, \$11,587 to Commerce, \$4,291 to Interior, \$831,254 to Navy, and \$6,767 to Veterans Administration.

Food and Drug Administration

Fifty Years of Progress

THE YEAR 1956 is the Golden Jubilee of Federal food and drug control. Nationwide commemorations by consumer, industry, and scientific organizations; and local, State, and Federal control groups have focused attention on progress since President Theodore Roosevelt signed the Food and Drugs Act on June 30, 1906. They have also brought consideration of problems the future may bring, and resolution to solve them to best protect public welfare.

The transition from the corner grocery, with a few hundred bulk items to be scooped or ladled from unprotected bins and barrels, to the supermarket of today, with about 5,000 largely prepackaged food items, has been surpassed in public benefit only by medical progress. The average life expectancy has increased more in this 50-year period than in the previous 24 centuries. Not only new disease treatments, but also food sanitation and nutritional improvements have contributed.

Dr. Harvey W. Wiley, who, more than any other, was responsible for the enactment of the 1906 law, came to the Department of Agriculture as Chief Chemist in 1883. It was only after 23 years of scientific research under his direction, culminating in a popular crusade, that the law to protect consumers was passed.

This research included studies into the composition of food in a period of transition of food processing from the home or local community to factories often in far-off areas. His investigations included reports by State officials of the scope of adulterated foods in their own areas, and the enforcement problems that could not be met locally. It included studies into the chemical preservatives being employed to aid mass production, and the effect such chemicals had

on the health of human guinea pigs—his “poison squad” of young men who volunteered to eat only the foods served them at his “hygienic table” and to let the scientists test the results.

When the law was finally enacted, new ground had to be broken to administer it. Federal controls over industrial practices were new to all concerned. The industries needed education; the Government needed better scientific data for wise enforcement. Inspectors had to be recruited and trained by persons inexperienced in making inspections. Court actions were specified in the law, but there were no judicial decisions to serve as guide lines.

Industry had many readjustments to make. Most constructive for the years to come was the formation of associations to learn to live with the law and to pool resources to employ technicians who could guide them in improving their products. As the Chief Chemist stated in the 1917 report:

The act has been one of the influences which has helped to draw competitors together into associations like the guilds of Middle Ages, associations shorn of the special privileges which the ancient guilds often enjoyed. These associations have come to understand the value of constructive work and some of them devote considerable sums annually to experimental research designed to solve the technical problems with which the industry is confronted. Thus, there is made available to the small manufacturer scientific assistance which would ordinarily be obtainable only by large corporations maintaining their own staff of investigators. Since the Bureau of Chemistry has always regarded it as its duty not merely to report violations of the law but also to prevent violations by constructive work intended to improve methods of manufacture, it cooperates actively with such associations of manufacturers. Such cooperation by the various Government agencies is bound to exert the profoundest influence on the country's industrial and social development.

Despite controversies within the Department of Agriculture as to how the new legislation was to be enforced, and pressures from some commercial interests to nullify the provisions they had opposed, a critical observer of more than 50 years has commented that more was done in the first 5 years to correct the abuses the law was designed to control than in any subsequent period in its history. The gross adulterations and misbrandings were largely stopped; it was for the future to cope with the more refined cheats, and with new processes and new, often untested, ingredients developed to meet the growing demand for factory-processed commodities.

The population has not quite doubled in the past 50 years, but traffic in canned foods has shown an 1,100-percent increase. Bulk staples changed to package staples, which in turn are rapidly being replaced by premixed, precooked, and frozen items. More and more fresh vegetables, meats, and other uncooked foods are found in the retail markets—cleaned, weighed out, and packed as convenience foods. These have reduced the housewife's time in the kitchen to about 25 percent of that of her grandmother.

At the same time she has, in effect, largely delegated control over sanitation and ingredients used in foods to the food manufacturer and the food control official. The present law, however, provides the sanitary controls that will protect her, if the added manpower these new conditions superimpose on the FDA staff is provided. Control of new ingredients clearly needs improvement, as discussed later.

In drugs, the transition was slower, but it was on the horizon when the 1938 law was enacted to bring controls up to commercial progress and to remedy defects revealed by judicial decisions. Some advances had been made in the first decade, particularly in the encouragement of basic research to improve manufacturing controls, and in an amendment designed to curb fraudulent claims. Material strides in consumer drug protection came under the 1938 act, which provided for the establishment of the safety of new drugs before marketing, and for better control over the labeling of medicines for safe and effective use.

Expanded medical and pharmaceutical research resulted in the development of the many drugs that have been introduced in the last 18 years, which are incorporated in 90 percent of physicians' prescriptions today. The safety requirements imposed under the 1938 act and its certification amendments have contributed materially to this startling advancement in medicine during that period.

Pharmacology, in 1938 a relatively minor science in terms of graduates and their employment, mushroomed as both manufacturers and control officials needed more and more evidence of safety, through studies on animals instead of primary testing on man.

The labeling provisions of the 1938 act, strengthened by judicial decisions tending to thwart subterfuge in accompanying labeling, have given the public more protection than ever before against being victimized by directly false claims. However, there remains the serious problem of cleverly worded promotional material which, by indirection and innuendo, creates a misleading impression as to the therapeutic usefulness of the article.

This summary does not permit detailed review of the many other developments during the past 50 years. A few cannot be ignored, even if listed only by title:

The evolution of the science of nutrition, with the word "vitamin" coined only in 1911, and recognition of foods for special dietary purposes first given in the 1938 act.

The change from arsenic and lead for agricultural crop control to new pesticides developed during and after World War II, with full legal control over "poisonous residues" effective only after the end of the 1956 fiscal year.

Cosmetics which were not even mentioned in the 1906 law and fell into some disrepute through injuries from a few types of

products. The 1938 law brought them under control, and cosmetics now enjoy full public confidence.

Therapeutic devices, which also were not controlled by the 1906 act and presented many problems. Under the 1938 act, they have been brought under regulatory control in much the same manner as drugs.

The change from the old-type drugs, usually administered orally or topically, to new, potent preparations, often injections requiring sterility and absence of irritating impurities.

Control over illegal sales of prescription drugs, which has become an increasing problem since 1938.

Certification of insulin in 1941, and a number of antibiotic drugs developed during and after World War II.

Use only of certified coal-tar colors, provided by the 1938 act. Newly developed methods are being employed to reevaluate the safety of some colors long accepted as eligible to the certification list.

Official food standards, the country's most important cookbook, which specify the ingredients of a fair share of staple foods, and provide uniform factors for their enrichment when it is found in the consumer's interest.

These all still present problems requiring the most constructive work of government and industry alike to advance consumer welfare. The 50th Anniversary commemoration ended with a high resolve to continue the "50 years of progress" through future protection of the public's food, drug, and cosmetic supplies.

Industry and consumer groups have both hailed the Citizens Advisory Committee recommendations to provide for FDA's future ability to fulfill such obligations. The 1955 report outlined the recommendations of this Committee, appointed by the Secretary of Health, Education, and Welfare, to study the Food and Drug Administration's obligations and responsibilities and its facilities to fulfill them.

The Committee's recommendation for a 3- to 4-fold expansion in the next 5 to 10 years, the first year to be from 10 to 20 percent, was met by Congress in appropriating about a million dollar increase for fiscal year 1957 over that of 1956, which will provide a staff increase from 872 to 1,017.

Its recommendation for a new headquarters building in Washington to consolidate administrative and scientific personnel has progressed to the stage of approval by the House and Senate Public Works Committees under the Lease-Purchase Act.

An internal reorganization calculated to provide for more efficient operations and to set up an expansible framework to absorb a bigger, more complex organization has been put into effect.

Many of the other recommendations of the Committee must await increased funds in the future.

Educational efforts for better compliance and benefit through more understanding of the law have been paramount to its administration from the inception of Federal food and drug control. Soon after the original act was passed, experts in sanitary controls went into the factories to teach processors how to prepare foods without preservatives to prevent spoilage. FDA inspections and improvement recommendations, as well as administrative conferences, have also been constructive factors in education of industry toward more and more effective compliance.

Consumers have had many exhibits, programs, and other 50th anniversary observances to remind them of their benefits under the food and drug laws and their part in full participation. If they are to continue an interest in this essential provision for their welfare, however, the recommendations of the Citizens Advisory Committee will require more educational efforts directly sponsored by the Food and Drug Administration.

"Each generation needs to learn anew the why and wherefore of its institutions and blessings; otherwise they are taken for granted. Today, the right of the public to pure foods, effective drugs, safe cosmetics, and truthful labels has become generally accepted. It was not always so. We need to be reminded of Dr. Wiley and his 23-year struggle to obtain our first Federal pure food and drug law. It helps us understand and appreciate the value of the protective laws we now have, and the truly wonderful progress made by our food, drug, and cosmetic industries in this half century. It also helps us understand our problems of today and our obligation to insure that food and drug products of today and tomorrow will continue to be the best in the world."¹

Food, Drug, and Cosmetic Act

DISASTER AND DEFENSE ACTIVITIES

Two major natural disasters required supervision of damaged foods and drugs to prevent use of polluted goods in the stricken areas or shipments to other places.

Hurricane Diane in August 1955 affected 22 primary areas in New England, Northeastern Pennsylvania, and New Jersey. Prompt proclamations by the Governors of the regions inundated by contaminated waters closed flooded food and drug establishments until sanitation could be restored and flooded stocks removed for destruc-

¹ Larrick, George P. : Public Health Reports 71 : 557 (1956).

tion or salvage under official supervision. Thirty-nine FDA men drove 18,673 miles to assist State and local officials control the damaged merchandise and establishments. No poisoning attributed to flood-contaminated products was reported. Loss of foods and drugs in New England alone approached \$18 million and \$2 million more from October floods.

In California, the Governor proclaimed a state of emergency on December 22, because of serious floods in the northern and central areas. FDA inspectors were alerted and a number spent Christmas week assisting State and local control officials. A harbor flood in Los Angeles also required surveillance.

While embargoed goods offer many segregation and disposal problems, the situation becomes even more serious when merchandise is swept downstream. In New England, drums of toxic chemicals were lost from a manufacturing plant and a public alert was sounded to prevent injury to salvagers. In California, 2,000 barrels of olives with loose bungs and substantial quantities of beer and wine, flooded out of storage areas, were retrieved by the owners who planned to handle them as usual until State quarantines were imposed.

The FDA civil defense training program for State and local food and drug officials, designed to help equip them to safeguard the food and drug supplies of the Nation in case of enemy attack, was conducted in 53 courses in 45 States. Nearly 2,000 people, including some representatives of other Departments and industry, attended 5-day courses on problems that might be engendered by attacks employing chemical, biological, or nuclear weapons, and procedures necessary to test exposed products and to restore production facilities for a safe food and drug supply.

Investigations were continued into the safety and nutritive value of foods exposed to atomic explosion in 1955, and an interim report has been released. The vulnerability of packaged foods to bacteriological attack and satisfactory decontamination procedures were also under active investigation during the year and plans were prepared for extending the scope of the program. Again in 1956, Pacific tuna monitoring was conducted to check on radiological contamination from weapons tests. Examination of tuna from 17 vessels on a cross-section sampling basis gave negative findings.

ON THE FOOD FRONT

Potential Health Hazards

Agricultural poisons.—The establishment of pesticidal residue tolerances for agricultural crops is discussed under "Regulations." With publication of established tolerances, there has been increased interest by growers, commercial dusters and sprayers, and the chem-

ical industry in the proper and timely application of insecticides, and better appreciation of the significance of toxicity determinations.

FDA Washington and field staff members responded to many invitations from such groups to address meetings and discuss the new regulations and how to comply with them. Inspectors surveyed growers' practices, often in cooperation with State and county officials, and warned against potential misuse.

In one area, reports were received that growers intended to apply Endrin to a cabbage crop just before harvest, contrary to recommended use, which would have resulted in dangerous and illegal residues. An experienced inspector went into the area and prevented the applications, by use of press, radio, and television warnings, plus personal interviews with individual growers, shippers, pesticide dealers, aerial applicators, packing plants, county agents, and others. Inspectors making later visits found that his warnings had been continued locally and that the whole area was well informed about hazardous use of pesticides. No violative residues were encountered there.

The first enforcement actions under the new regulations were required when growers employed Endrin for lettuce, for which no tolerance had been proposed or set. Two carloads from a field sprayed 2 weeks before harvest were shipped across the continent and seized on arrival in the East. Other seizures removed from consumer use 4,500 cases of frozen spinach prepared from spinach that had been sprayed with DDT only 7 days from harvest. Customary washing and blanching at the freezing plant removed about three-fourths of the spray remaining on the harvested crop, but the frozen product still contained more DDT than is permitted on the fresh vegetable. The first import detentions under this amendment involved 75 lots of pears and 3 of apples which bore lead residues in excess of the tolerance. Other actions against nonpermitted uses of pesticides on raw agricultural crops included seizures involving more than 550 tons of grains treated for seed use with mercurial compounds and later diverted to food use.

Imports of one variety of Canadian wheat in demand for seed because of its resistance to rust, increased the treated seed problem. Unless certified, such wheat had to be treated with a fungicide before admission. Since some of these fungicides are colorless, sampling and analysis of the colorless seed wheat was undertaken and 75 lots were detained. One was reexported and the others distinctively colored to prevent diversion into food grains.

Complete disregard for label warnings on a poisonous rodenticide against use directly on food by three California bean warehouses was observed during FDA inspections. Thousands of bags of beans

had been dusted heavily with the poison and the contents were dangerously contaminated. The State placed blanket embargoes on remaining lots and a countrywide followup led to Federal seizure of 150 tons and various State seizures of 500 tons. An estimated 5,000 tons are being treated to remove the pesticide.

Other careless pesticide use in the New Orleans area brought Federal seizure of 52 tons of flour and 3½ tons of green coffee beans, and city seizure, pending removal of a poisonous insecticide, of 2,330 tons of rice.

Food poisoning.—Two outbreaks of illness resulted from popcorn intensely colored with coal-tar dyes which were subsequently withdrawn from the list of certifiable food colors. The first involved Hallowe'en "cats" so heavily colored with FD&C Orange No. 1 that some contained eight or more times the cathartic dose for an adult. Outstanding lots were recalled. In the second case, plastic Christmas stockings filled with popcorn colored with FD&C Red No. 32 caused 178 illnesses following an industrial firm's Christmas party for its employees and their families. The firm recalled other lots, which had been distributed only locally.

FDA investigators traced 44 other outbreaks of food poisoning reported during the year. In 18, staphylococcus was the causative agent, with inadequate or complete lack of refrigeration contributing to the growth of toxic organisms. Others were caused by locally prepared wieners containing excessive nitrates, wild mushrooms, and salmonella contamination of chicken. Five outbreaks of botulism, involving 15 individuals of whom 4 died, were traced to home-canned foods. Twelve became ill after eating an imported fishery product; remaining stocks contained many defective cans which were removed from the market.

Inadequately processed canned mushrooms and canned goats' milk and a canned baby food in defective containers were recalled from the market because of active spoilage. No illnesses were reported. Other recalls that may have prevented illnesses involved crabmeat contaminated with *E. coli*.

To Keep Food Clean

Food seized because it was filthy or decomposed totaled nearly 2,600 tons and accounted for 86 percent of the food seizures. Of the 79 criminal cases filed in the food field, 71 were based on filth charges. Educational programs were pursued as far as FDA facilities would permit, and with the active assistance of industry and agricultural groups.

The improvement of the sanitary storage of grain—the key to the success of the entire clean grain program—was brought to the attention of farmers and elevator operators by intensive educational

work, with the active participation of the U. S. Department of Agriculture, county agents, State agricultural colleges, farm youth organizations, farm publications, and the grain trade. This better knowledge of how to keep grain clean was reflected in the fact that fewer carload lots of contaminated grain were seized in the entire fiscal year 1956, than in the 6 months of the previous fiscal year when the reactivated program was in effect. Actionable levels of contamination were reduced, effective July 1, 1956.

Every hatchery received, through industry association letters, FDA's warning against diversion of decomposed incubator rejects into edible egg channels. Hatcherymen, visited by inspectors in the spring of 1956, all remembered the warning and some told of precautions they had taken to avoid unsuitable disposition of their rejects. A major outlet for incubator and candling room rejects went out of business, following a second prosecution within a year.

Table 1.—Actions on foods during the fiscal year 1956

Projects	Seizures	Criminal prosecutions instituted	Injunction petitions
Total.....	689	79	6
Beverages and beverage materials.....	8	0	0
Bakery, ready to eat cereal, and macaroni products.....	36	14	0
Cereals and grain products:			
Human use.....	131	8	0
Animal use.....	1	1	0
Chocolates, sugars, and related products.....	15	8	0
Dairy products:			
Butter and churning cream.....	15	3	0
Cheese and other dairy products.....	5	4	0
Eggs and egg products.....	15	3	0
Flavors, spices, and condiments.....	36	4	1
Fruits and fruit products.....	66	2	0
Meat products and poultry.....	39	8	3
Nuts and nut products.....	49	2	0
Oils, fats, and oleomargarine.....	2	0	0
Seafood.....	71	5	1
Vegetables and vegetable products.....	134	6	1
Miscellaneous foods (mixed lots).....	25	8	0
Food for special dietary uses.....	41	3	0
Violative serving of oleomargarine.....	0	0	0

Eight thousand raisin growers and farm driers were presented individually with educational materials outlining their responsibilities under Federal and State laws to employ sanitary handling and drying procedures. For over a full season processors have inspected incoming stocks, with only a few failing to join the general movement toward industry-wide compliance. One firm was enjoined from introducing into interstate commerce raisins produced under insanitary conditions and another was prosecuted.

Public interest in the wholesomeness of dressed poultry increased during the year, after numerous press items pointed to lack of Federal controls similar to those provided for meat. Since Federal poultry

inspection is a voluntary U. S. Department of Agriculture service, the only legal controls now rest with the Food and Drug Administration which must divide its limited inspection staff among all food, drug, and cosmetic industries.

Educational efforts are progressing through joint efforts of the Food and Drug Administration and the Public Health Service to further improve the wholesomeness of poultry and poultry products.

Mass production has brought new problems, including a high disease rate in concentrated broods, desire for rapid handling in processing lines, increased marketing of cut-up birds, freezing, pre-cooked items, and long-distance hauls. Seizures of unfit poultry in 1956 were directed against diseased, fecally contaminated, and decomposed birds. Spoilage resulted largely because of de-icing during trucking from South Central States to the West coast. Of the 38 shipments of unfit poultry seized, 13 contained diseased birds, in comparison with 32 seizures, 21 because of disease, in the previous year. Three packers were enjoined from shipping filthy poultry packed under insanitary conditions.

Growing demand for ready-to-eat foods presented problems in storage of raw foodstuffs by bakers and other manufacturers. Some have attempted to increase production without facilities to protect ingredients from infestation and spoilage. Other storage problems arose in warehouses which reduced clean-up operations because of increased labor cost.

Increased labor cost, in comparison with raw material prices, was reflected also in a quality decline in some parts of the New England fish industry. Many educational meetings of industry and enforcement officials were held and more are scheduled. One constructive result was the formation of a cooperative of firms controlling more than 40 percent of the fish landed in Boston. This group has set up a compulsory, industry-run inspection service for its members.

The trend toward use of floating canneries and freezing ships in remote areas of Alaskan waters is presenting an inspection problem. While the pack is examined, insofar as possible, when it is brought into ports in the States, detection of contamination of crabmeat and other seafoods particularly subject to pollution is more efficient through factory inspections.

The percentage of time devoted to tomato products each year is governed by crop conditions. After a good early crop in the East, hurricanes and other adverse weather caused rot and insect infestation which required unusual precautions on the part of packers and inspectors to prevent the processing of unfit material. Heaviest seizures were of pizza sauce and puree packed by one firm, and surveillance over future shipments must be maintained.

Thirty-four carloads of Mexican tomato catsup, of 37 offered for entry on a large contract, were detained because of pinworm infestation. Thirty-four additional carloads prepared to fill the same contract may not be offered for entry as a result.

Occasionally abnormalities in canned goods develop during storage and the affected goods are usually destroyed. However, one packer sorted out as "normal" two carloads of canned tomatoes from a large stock in which decomposition had developed. An inspector discovered them on the dock awaiting shipment and collected samples which confirmed decomposition. Both carloads were seized before they could reach consumers and the corporation was prosecuted and fined.

Pocketbook Protection

Although regulatory work was predominantly in the field of health, filth, and decomposition, flagrant cheats received regulatory attention. A Maryland oyster packer who persisted in "watering" his pack, contrary to the accepted practices of the industry as a whole, was enjoined from interstate shipments after heavy seizures. A Rhode Island retail butcher who sold, as beef, horsemeat steaks and hamburger, was jailed.

Among seizures were cocoa powder adulterated with ground cocoa shells and with cottonseed flour, olive oil labeled as pure but containing a substantial portion of cottonseed oil, and a butter and cheese additive not permitted by standards.

Continued violations of food standards were noted during the year, such as green beans containing tips and cuts without label declaration, "pitted" cherries containing pits, improperly labeled sirup concentrations in canned fruits, low-fat butter and cheese, and deviations from standards by new names, such as "oyster stew base" with more water than permitted for canned oysters. Increased appropriations for the next fiscal year are intended, in part, to supply inspectional time to curtail such violative practices.

Seafood Inspection Service

Shrimp processors and oyster canners who meet Government requirements for sanitation and controls, may apply voluntarily for FDA seafood inspection which is financed by inspected packers' fees. Seven firms took the service, but inspection was withdrawn from two because of violation of the regulations. Under the inspection service, 6,978,848 pounds of whole shrimp and 29,753 pounds of headless shrimp were processed, and 32,088 cases of oysters were canned.

PRODUCTS OF SPECIAL DIETARY SIGNIFICANCE

Recent court cases involving misleading claims of benefit for the use of vitamin and mineral preparations have served to call attention

to the many media by which the consumer is misinformed about nutrition. He is continually bombarded by a repetition of exaggerated claims based on half-truths and scare techniques.

Education of the consumer in the facts of nutrition has not kept pace with scientific developments in this field. Since World War II, medical discoveries have been so spectacular that the layman now finds it difficult to differentiate between fact and fiction. He is vulnerable to misrepresentations not only about "wonder drugs" but also about the value of the foods he eats each day. For example, he is told that soils have been so depleted by cropping and erosion that ordinary foods cannot be relied upon to supply even the bare necessities of essential nutrients; that food processing destroys vitamins and minerals; and that his diet is so inadequate as to lead to malnutrition. The simple remedy, he is told, is to take a tablet or capsule that contains vitamins and minerals that will reinforce his faulty diet. Such misinformation should be combatted with a program of sound nutrition education.

A sizeable number of vitamin-mineral preparations are now marketed by organized house-to-house sales persons who in the privacy of homes talk not only about soil depletion and inadequate nutritional qualities of ordinary foods, but also make outright claims for the treatment of serious diseases.

The development of actions against individual salesmen is time-consuming, but a number of prosecution cases have been successfully terminated. To date the firms distributing the products sold by such house-to-house canvassers have, in each instance, repudiated the salesmen's claims as being unauthorized, and evidence to show the firms' responsibility for the individuals' actions was not available. Therefore, the criminal actions were brought only against the individuals, who were fined and placed on probation.

Late in May, a "health food" lecturer who had been found guilty by a jury in 1955 of misbranding his wares, received a sentence of a year and a day in jail, which he is appealing. One of the pioneers in the field of selling herbs and natural foods to heal diabetes, tuberculosis, epilepsy, and other serious diseases, his broadest claim was that his products would "put off death to the very last minute."

During the year, the vitamin content of 890 samples was tested by 2,721 assays in which chemical, biological, microbiological, fluorometric, spectrophotometric, radioactive tracers, thiochrome, and other methods were employed. Forty-four shipments were seized because they contained less vitamins than declared on their labels.

With the emphasis on education of packers of products purporting to be of low-sodium content, compliance with the low-sodium regulations in the 21 months since their effective date has been pro-

gressing satisfactorily. Only three seizures were made in 1956 of so-called low-sodium foods failing to bear the mandatory labeling in respect to their sodium content.

DRUGS AND DEVICES

For some time, FDA has been concerned with the problem of accidental poisoning among young children who eat aspirin tablets obtained from packages left carelessly within their reach. An advisory ruling, designed to help protect children against such accidental poisoning resulting from swallowing large amounts of aspirin and other salicylate drugs, was issued in October. Drug manufacturers were asked to use conspicuous package warnings that such drugs should be kept out of the reach of children. This followed a medical advisory panel recommendation and was a part of a joint educational program to promote the safe use of drugs.

The industry has taken commendable steps by adoption of such warnings and other means to warn the public that all drugs should be kept in a safe place and out of the reach of children. It has given widespread distribution to reprints of an FDA leaflet entitled "Protect Your Family Against Poisoning," which covers drugs and household poisons that may cause accidental poisoning.

Salk polio vaccine.—Since the great demand for Salk vaccine for poliomyelitis might precipitate a black market, the Department requested Congress to make a special appropriation to the Food and Drug Administration to maintain surveillance over national distribution and to initiate regulatory action should abuses develop.

During the period from August 1955 to June 1956, inspections were made of manufacturers, wholesalers, and retailers to audit and verify distribution records. These inspections were further augmented by visits to physicians, hospitals, health agencies, and individuals. In all, a total of 33,000 such inspections and visits were made. No major abnormalities in the distribution of the vaccine developed. As supply and demand came into better balance, it became evident that further funds for a special program would not be required for the 1957 fiscal year. Surveillance during the coming year will be maintained by all districts as part of normal drug operations.

Recalls.—Twenty drug recalls were supervised by FDA during the year. Ten of the products involved were below the labeled potency or strength, and one, a digitalis preparation, was excessive in potency. Two injectables and an eye medicine were not sterile. Two other injectables were pyrogenic, which would have caused a temperature rise in patients. Two products were recalled for corrections in dosage directions and the expiration date. Another had developed a dangerous pressure in the bottles after shipment. In volume, the largest recall involved an anti-convulsant the manufacturer voluntarily with-

drew from the market because its recent toxicity study showed damage to small laboratory animals not revealed in earlier studies.

Illegal Sales

Problems of illegal sales of dangerous drugs remain serious and require a major segment of the available regulatory time for drugs. Barbiturates (for sleep) and amphetamines (stimulants) are the drugs most commonly encountered. Fewer complaints have been received of drugstore violations, but channels unauthorized to sell such drugs are active in bootleg operations.

Criminal prosecutions were filed against 114 drugstores, pharmacists, lunch counter and tavern operators and employees, filling station men, and peddlers. Twenty-two of the actions, involving 42 defendants, developed out of complaints that truck drivers were obtaining "stay awake" pills illegally at roadside stops and their misuse was jeopardizing highway safety. FDA inspectors spent many months in undercover investigations of the sources of their supplies.

Publicity given to these cases by the National Safety Council, trucking associations, labor unions, and others has made not only truck drivers but also other drivers conscious of the dangers of using drugs to stimulate them to continue driving after normal fatigue has set in. On the whole, conditions in the areas covered have improved materially but the warnings have prompted additional complaints that will require a heavy drain on inspection time there and in other sections not yet covered.

Misbranded Drugs and Devices

Each report is another chapter in the continuing war against worthless medicines, which reappear year after year in new or continued attempts to victimize the public.

The 1955 report outlined a diabetes remedy case lost in district court on the ground that a 1923 patent established the validity of current claims of efficacy for the treatment of diabetes. The Government appealed the case to prevent the public from being exploited by a worthless remedy when there are effective measures available to control the disease. The appellate court reversed the district court.

An injunction to restrain misbranded drug shipments from a Texas cancer clinic has been discussed in a number of previous reports, and last year seizures from its new Pennsylvania branch were reported. The trial date for court contest of these seizures was postponed until the fall of 1956. Since people who have or fear they have cancer are still being encouraged to go to the two "clinics" for treatment and to depend upon the worthless medicines, FDA issued a public warning in March 1956, which has brought heavy corre-

spondence with people who fear that relatives and friends may be the next victims.

The 1954 and 1955 reports outlined an injunction case to ban shipments of an inert glandular product misbranded with sex rejuvenation claims. It involved a fraudulent sales promotion scheme, including false foreign invention and manufacturing claims. A permanent injunction was granted in November 1954, less than 2 weeks after actual distribution began. In September 1955, the two brothers who operated the mail-order business were fined and given 5-year probationary terms, and their firms were fined.

An injunction against shipments of "orgone energy" devices and misbranding literature was reported in 1954. The manufacturer not only did not destroy the literature and recall the products then on lease in other States, as ordered by the court, but he continued interstate distribution of both the devices and literature with the aid of armed assistants. Criminal contempt proceedings against the manufacturer, his "Foundation," and his principal distributor were instituted after FDA inspectors had collected evidence of violation of the order over a 2-year period. First declining to appear for trial, the two individuals finally arrived under Federal arrest, and then *insisted* that they had continued the traffic contrary to the injunction order. A 2-year jail sentence for the manufacturer, a 1-year jail sentence for the distributor, and a \$10,000 fine for the firm are now under appeal. Meanwhile, they are under bond, belatedly trying to comply with the order.

The printed material ordered to be recalled and destroyed constituted accompanying labeling as defined by the law and judicial interpretations. The fact that some of the false and misleading representations used in promoting the sale and rental of the devices were contained in books with hard covers did not change the status of this literature as "accompanying labeling."

A long-delayed case against a mineral water, with collateral literature claims for treatment of kidney disorders and arthritis, was brought to trial in the spring of 1956. The Government charged that this drinking water would not be efficacious for these conditions, but the jury did not confirm the Government's charges.

In September 1953, the contested seizure of an antacid advertised as stopping acid pain of diagnosed stomach ulcers was decided in favor of the Government, and multiple seizures followed when the advertising was not withdrawn. A criminal action based on shipments made after the seizure contest brought a fine of \$5,500 to the corporation and 3 years' probation to two of its officers in June 1956. Despite the blatant claims in full-page newspaper ads, the label of the drug merely stated that the product was "for the temporary relief of excess gastric acidity."

Another ulcer "remedy" that received attention during the year was an imported product, promoted through popular magazine publicity which created great demands for entries from Denmark and Canada. Since no new-drug application had become effective, several hundred mail-order shipments to individuals were detained at entry points. At the end of the year, some lots were being released to doctors for investigational use.

Among the 51 medicines seized for false and misleading claims were articles composed of dried alfalfa, cereal grass, apple derivatives, buckwheat flowers, powdered pumice, phosphates, sulfates, papaya, royal jelly (said to be the special bee food for productive and long-living queen bees), or a mixture of one or more of these and vitamins and minerals. They bore claims for the treatment or prevention of almost every disease.

Seizures of uranium ore pads, blankets, artificial tunnels, and other containers of slightly radioactive ore and sand, completely worthless to alleviate arthritis as claimed, were mentioned in the 1955 report. Additional shipments of such materials were seized in 1956, and a local warning was given to a southwest dairy farmer who was charging admission for visitors to cover aching feet with his "Uranium Ease Foot Powder" farm dirt, and selling them the dirt in 25-pound bags. One firm was enjoined in March 1956 from further shipments of misbranded radioactive pads, monazite sand, and similar items.

Veterinary Drugs

Commercial feeds have long been of major concern to State feed officials who enforce statutes controlling protein content and labeling. When such feeds became a major market for drugs, such as hormone-like substances and antibiotics, feed manufacturers became drug manufacturers, confronted with the new responsibility of compliance with both the safety and labeling requirements of the Federal law. In January, a symposium on problems being encountered was attended by approximately 400 drug suppliers, feed manufacturers, livestock and poultry feeders, and control and public health officials from all parts of the country. This meeting did much to solve many questions that have arisen in this fast-moving, highly technical field.

Twelve veterinary medicinals were seized for false and misleading therapeutic claims, failure to meet labeled composition or bear required labeling, and violation of the new-drug and antibiotic-certification requirements. One contested seizure was upheld by a district court which confirmed the Government's charge that cannibalism in poultry flocks is a disease, and that no drug product presently known to medical science is an effective control.

A permanent injunction in June 1956 banned shipments of a mineral compound that had been the subject of litigation for the past

decade. It was originally called "Stop-Bloat," but after the Government was upheld in a contested seizure trial, the name of the product was changed; illustrations and representations in the labeling continued to represent it for bloat. Additional seizures were made and the Government was upheld in another contest, but the manufacturer persisted in misbranding the product.

New Drugs

During the fiscal year, 520 new-drug applications were submitted to the Food and Drug Administration. Of these, 407 were allowed to become effective, 346 for human and 61 for veterinary purposes. The number of supplemental applications has continued to increase. Twenty-four hundred and ninety-two went into effect during the year, half for veterinary preparations. No order was issued refusing to permit an application to become effective, but the effectiveness of one application was suspended.

From year to year new trends in therapy are reflected by submission of applications for drugs usually developed as a result of advances in basic medical research. Some of the drugs considered during the year were tranquilizing agents, a central nervous system stimulant for the restoration of depressed physical and mental activity, an anti-hallucinatory drug, two general anesthetics administered by intravenous injection, some nonbarbiturate hypnotics and sedatives, an antibiotic useful in staphylococcic and proteus infections resistant to other agents, a skeletal muscle relaxant, a new alkaloid from *Rauwolfia*, a steroid which promotes protein anabolism, two ganglionic blocking agents for the treatment of high blood pressure, a radio-isotopic preparation for the determination of red-cell volume and useful in studies of red-cell survival and loss, and anticoagulant solutions packaged in plastic containers for the collection of blood.

COSMETICS AND COLORS

There were no seizures or criminal actions in 1956 based on violation of cosmetic requirements. A coal-tar color originally consigned to a soft drink manufacturer was seized because it had not been certified.

CHANGES IN THE LAW AND REGULATIONS

While FDA representatives testified at numerous hearings in the 2d session of the 84th Congress, only three bills were enacted in addition to the appropriation bills. All were essentially noncontroversial.

Congress amended its own statutory name for dried skim milk by changing it from "nonfat dry milk solids" or "defatted milk solids" to "nonfat dried milk."

A law was enacted which permitted the continued use of FD&C Red No. 32 for coloring the skin of oranges not intended for process-

ing. A 3-year time limit was set, unless a more suitable color is developed in the meanwhile. This legislation arose over the fact that the Secretary delisted and discontinued certification for food use of this and two orange coal-tar dyes because of conclusive evidence that they are not harmless. This evidence did not include specific findings of toxic results from use in coloring oranges, but the law does not give the Secretary authority to specify the foods which may contain certified colors or limit the amount of color that may be used. He is directed to certify colors as "harmless and suitable for use" in food generally. The Secretary's order delisting these colors was appealed in three circuit courts. One of the circuit courts upheld the Secretary's action after the close of the fiscal year.

The third amendment was procedural legislation which extended the beneficial provisions formerly applicable only to food standards to other rule making in the absence of controversies. This legislation was strongly supported by the Food, Drug, and Cosmetic Section of the New York State Bar Association, which had sponsored the earlier amendment to simplify the establishment and amendment of food standards.

Among the numerous hearings at which FDA presented the views of the Department, but no laws were passed, were those on chemical additives for food, and compulsory poultry inspection.

Eleven bills were introduced in the 84th Congress to require the testing of chemical additives for safety before they are put into foods. There was general agreement by Government and industry that new legislation is needed in this field. Three principal areas of differing opinions about the form such legislation should take were:

(1) What should be done about chemicals already being used when the law is passed?

(2) Should there be evidence that a chemical is useful before it is permitted in food?

(3) How should controversies between industry and Government be settled?

None of the bills was enacted, but there is so much interest in this field that new legislation probably will be proposed in the next session of Congress.

At hearings on compulsory poultry inspection bills, FDA testified as favoring such legislation but believing that it would be a mistake for this organization to undertake a routine in-plant type of inspection of such magnitude, at a time when its staff and facilities are so occupied with the important problems of expansion and development of an organization adequate to deal with the entire food, drug, and cosmetic supply. It was urged that efficient operations under the Meat Inspection Act for the past 50 years have equipped the U. S.

Department of Agriculture with the pattern and principles to operate an effective poultry inspection service.

Regulations

The removal of three coal-tar colors from the list permitted for food use is discussed in connection with the legislation enacted concerning FD&C Red No. 32. This red color and FD&C Orange No. 1 and No. 2 were removed from eligibility for certification as FD&C colors on November 16, 1955, and added to the list of colors for external drug and cosmetic use only.

New drugs.—Proposed revisions in the new-drug regulations were published in the Federal Register on September 8, 1955, and May 30, 1956. Although the Commissioner of Food and Drugs has the authority to publish such regulations without furnishing interested persons an opportunity to state their views, drug manufacturers' representatives were given full opportunity to participate in their development. The final order was published after the close of the fiscal year (Federal Register July 25, 1956).

Major changes in these regulations include: (1) The establishment of procedures for the conduct of hearings prior to the refusal or suspension of an application for a new drug.

(2) Provision for the "filing" of new-drug applications refused as incomplete by the New-Drug Branch, to furnish applicants an opportunity for administrative and judicial appeal from any arbitrary refusal to file an application.

(3) A revised application form containing more detailed information to assist the applicant in completing a sound application with less individual, time-consuming correspondence.

(4) Increased emphasis on the responsibility of an applicant to adhere to the provisions in an application, with broader grounds for suspension if they are violated or if the application contains untrue statements or significant omissions of material facts.

It is expected that the revised regulations will promote better applications, more careful observance of the conditions necessary to assure the safety of new drugs, and more efficient, faster processing of new-drug applications.

Food standards.—A number of amendments were made to standards for various cheeses. The most important of these makes sorbic acid and sodium and calcium propionates optional ingredients of several cheeses, process cheeses, cheese foods, and cheese spreads. Sorbic acid and the sodium and calcium propionates retard mold growth and are now widely used on packages of sliced cheeses.

One public hearing was called because of objections to an order by the Commissioner of Food and Drugs declining to adopt a definition and standard of identity for a food to be known as partially creamed

cottage cheese. No order based on evidence taken at this hearing was issued during the fiscal year.

Definitions and standards of identity and standards of quality for canned pineapple and pineapple juice and a fill of container standard for canned pineapple juice were adopted. The standards involving pineapple are based on evidence at a hearing held prior to the passage by Congress of the Hale Amendment.

A definition and standard of identity for canned prune juice—a water extract of dried prunes—was adopted.

Pesticide chemicals.—The Pesticide Chemicals Amendment was scheduled to become fully effective in July 1955, with provision for limited extension of the effective date for specific chemicals. To prevent a hardship on agriculture it was extended for a number of chemicals to take account of the growing season. It became fully operative for all chemicals on July 22, 1956, shortly after the close of the fiscal year.

Fifty-nine petitions for tolerances or exemptions were submitted during the year. Fifty petitions were filed and the following actions were taken: 40 petitions resulted in the establishment of permanent tolerances; 1 petition resulted in the establishment of permanent exemptions; and 5 petitions resulted in the establishment of temporary tolerances. Since the Pesticide Chemicals Amendment was enacted, over 1,200 tolerances or exemptions have been set for 82 different pesticide chemicals.

The Pesticide Chemicals Amendment provides that an advisory committee composed of experts selected by the National Academy of Sciences may be formed to consider difficult questions of science raised in a petition for a tolerance. One such committee was formed at the request of a petitioner and an appropriate tolerance was established for the pesticide chemical involved, based upon the report and recommendations of the committee.

A tolerance was established for residues of the antibiotic chlor-tetracycline in uncooked poultry. Evidence presented by the manufacturer of the antibiotic demonstrated that when poultry containing the tolerance level of the chemical is cooked, no significant amount of antibiotic remains; it is destroyed by heating. The data also showed that the dip is effective only when applied to clean, freshly killed birds. No evidence has been submitted that established the safety and usefulness of antibiotic application to other foods.

CERTIFICATION SERVICES

Coal-tar colors.—All coal-tar colors used in foods, drugs, and cosmetics (except hair dyes) must be from batches certified as harmless by FDA. In 1956, 4,776 batches, representing 5,296,414 pounds, were certified, and 29 batches, representing 47,765 pounds, rejected.

Insulin.—The act provides for predistribution testing and certification of all batches of insulin marketed. Examination of 338 samples resulted in the certification of 295 batches of insulin and 42 batches of materials for use in making insulin-containing drugs. One trial batch of Lente insulin was not approved because it did not meet hydrogen ion requirements.

Antibiotics.—The predistribution testing and certification of certain antibiotics is also provided by amendments to the act. Examinations were made of 18,256 batches of penicillin, chlortetracycline, bacitracin, chloramphenicol, dihydrostreptomycin, streptomycin, tetracycline, neomycin, nystatin, polymyxin, oxytetracycline, and carbomycin during the fiscal year. The last 5 antibiotics are not included in the certification amendments, but are tested when they are mixed with those requiring certification. Seventy-three batches were rejected for failing to meet the following standards: Potency (18), sterility (37), pyrogens (12), and moisture (6). In addition, manufacturers withdrew their requests for certification of 45 batches because they failed to meet sterility and other standards. During this period, 359 amendments and 45 new monographs were added to the antibiotics regulations.

Enforcement of Other Acts

A total of 104,013,962 pounds of tea was examined under the Tea Importation Act, in contrast with totals of approximately 97 million in the fiscal year 1955 and 124 million in 1954. Rejections for failure to measure up to the standards set by the U. S. Board of Tea Experts totaled 94,372 pounds, or 0.09 percent. Six rejections were appealed to the U. S. Board of Tea Appeals, which upheld the decision of the FDA examiner in three cases, and in some portions of two others. The appeal was sustained in other portions of these two and in the remaining case.

Three caustic poisons were seized for failure to bear the labeling required to warn users of their potential danger if misused. Included were aluminum and concrete etchers and a soldering acid.

No permits were issued for importations of milk from Canada.

No legal actions were instituted under the Filled Milk Act.

New Court Interpretations

The Supreme Court did not review any cases under the Federal Food, Drug, and Cosmetic Act during the fiscal year 1956.

An appeal from an injunction restraining the shipment of a drug product because it was dangerous and falsely represented, was based

on the defendants' contention that experts who testified for the Government had not used the product. The Seventh Circuit Court of Appeals upheld the district court without a written opinion. This is another decision admitting expert testimony without actual tests of a drug.

In the first case decided under the Federal Food, Drug, and Cosmetic Act on the question of whether the Federal court has power to order restitution in an injunction proceeding, a district court judge held that he did not have such powers. He concluded that there is no indication in Congressional history that supports any other sanction, or specifically, the power to order restitution under this act. The Government appealed, and after the close of the fiscal year the Ninth Circuit Court of Appeals upheld the district court's decision.

In a seizure of tomato paste, all libels charged preparation under insanitary conditions, and two also charged the presence of rot and filth. The lower court held that the Government failed to prove the charges except in the case of rot in a few codes in one libel. The Government appealed on the grounds that the trial court's findings of fact were clearly erroneous. The U. S. Court of Appeals for the Seventh Circuit reversed the lower court with respect to all codes that showed a mold count of over 40, and ordered these codes condemned. The appellate court agreed with the district court that none of the paste was packed under insanitary conditions.

A druggist defendant in an illegal sales prosecution case filed a motion to suppress evidence gained during inspection of his drugstore, and to dismiss the information on the grounds that inspection authority under the act applies only to factories and warehouses. He also argued that section 703 of the act granted him immunity. The district court judge, however, held that drugstores are subject to inspection under the "Factory Inspection" section of the act, and that records may be examined and copied by Government agents conducting an inspection, if permission to inspect the record is given by an authorized person.

A judge in a New York district court granted the Government's motion to dismiss the plaintiff's suit against the Government under the Tort Claims Act, seeking to recover damages resulting from importations of tomato paste that were allowed entry into this country but later seized. The motion was based on the grounds that the actions involved discretionary functions of the Government and are not subject to the Tort Claims Act.

In 1948 a seizure was made of a macaroni product containing 20 percent protein, because it failed to comply with the standard which limits the protein content to 13 percent when gluten is used as an ingredient. Through discovery procedures all questions were settled

except whether the product "purports to be or is represented as spaghetti." The Government's motion for summary judgment was granted by the district court judge, and the Court of Appeals for the Third Circuit affirmed the judgment of the district court. This opinion again upholds the integrity of food standards. From a procedural standpoint, it exemplifies the use of discovery in narrowing the issues, and decreasing the cost of trial.

When prosecuted on charges of illegally dispensing amphetamines and other dangerous drugs, a licensed M. D. pleaded not guilty and filed a motion to dismiss on the grounds that the act does not apply to licensed M. D.'s. The judge of the district court overruled his motion on the grounds that he was selling the drugs promiscuously, without examinations. Later he fined the physician \$3,000 and placed him on probation for 3 years.

SCIENTIFIC INVESTIGATIONS

All of FDA's research and scientific studies are aimed toward better public protection in areas in which the consumer cannot protect himself. The contrast between the comparatively few and simple methods and tools available when the 1906 law was enacted and the complex physical and biological methods and apparatus in use in FDA and industry laboratories today is paralleled only by contrast in the commodities under control at the beginning and end of this half-century span.

Official and industrial chemists have collaborated during the years through groups such as the Association of Official Agricultural Chemists and the United States Pharmacopeia Revision Committee to develop methods for the detection and measurement of constituents that would bring comparable results in the hands of all qualified analysts.

By thus combining forces in a purely scientific environment, methods have been developed that meet the needs of industry chemists in compounding and labeling products and of regulatory chemists in checking the accuracy of label declarations. This eliminates the need for argument over methods in the courtroom, which would tend to confuse lay juries and judges.

Particularly since 1938, collaborative pharmacological and experimental medical studies have brought similar benefits in establishing the safety and efficacy of the vast number of new medical and veterinary preparations that have been developed.

Discussion of the scientific work required to solve some of the problems presented by new products will indicate the complexity of the factors involved in FDA's scientific work. Other work on methods of analysis and studies on the efficacy and safety of products

regulated by the Food, Drug, and Cosmetic Act are continuously in progress. They include laboratory and clinical studies of antibiotics and other new drugs; developing better methods for the rapid detection of food poisoning agents; analysis of cosmetic ingredients; toxicity studies of coal-tar colors, and new ingredients of foods, drugs, and cosmetics; and studies of the nutritional effects of new processes and components.

A substantial amount of time was spent in chemical studies of spray residue data submitted by applicants for tolerances on raw agricultural commodities, and in pharmacological evaluation of the safety of the proposed tolerances. The chemical investigations included studies of the reliability of the applicant's method of measurement of the residue left, and the need and practicability of the tolerance. The pharmacologists studied the data submitted by applicants for tolerances and FDA chemists' evaluations in determining whether residues would be safe, and, if so, the amount that should be permitted in consideration of chemicals being ingested from other sources.

Decisions could not be reached without fundamental background data. For example, before it was determined that no tolerance was needed for the residues of four chemical fumigants for grain, extensive investigations were required. Studies were made of fumigant residues in wheat and milled wheat products in a pilot-scale mill and in commercially fumigated grain. The rate of dissipation of fumigant residue and the effect of cooking and baking on residues were measured. These investigations showed that high residues primarily left on grains when these fumigants are used drop sharply with aeration, are further reduced during the milling process, and are completely destroyed by cooking.

Since ethylene dichloride was the most persistent of the fumigants studied, an investigation was made of the possibility of its being carried from feed into milk. No residues appeared in milk of cows fed high levels for 22 days. Similar results were obtained with parathion and several other organic phosphate insecticides. Traces of them showed up in the milk only when exceedingly high levels were fed.

The chlorinated hydrocarbons, on the other hand, are appearing in market milk, according to a survey still under way. Analysis was made of 800 samples of milk collected from retail channels by the 16 field districts. The samples were screened by a bio-assay test using flies, and when toxic residues were found they were identified, if possible, by paper chromatography and measured. About 62 percent of the samples were found to contain chlorinated hydrocarbons ranging from a trace to as high as 1.5 parts per million of DDT or related products, including benzene hexachloride, lindane,

rothane, methoxychlor, and others. Some samples contained as many as four of these insecticides.

Pharmacological studies of the safety of residues from agricultural pesticides included the metabolism of chlorinated insecticides—where the metabolites are excreted, whether they are toxic, and the effect of solvent or spreader substances combined with them as inhibitors of excretion.

The toxicity of various organic phosphate insecticides was determined on animals and these findings were applied to human sensitivity through the use of volunteers. Dietary levels that will cause blood cholinesterase inhibition were established. It was further found that when two or more organic phosphates are given together, a synergistic action frequently occurs in which the combination is more toxic than would be expected from the quantities of the individual insecticides alone.

The incorporation of drugs into animal feeds, to control certain diseases and to help the animal make more efficient use of food, requires close control of the amount being added. Chemical methods for quantitative determination of two hormone-like substances—diethylstilbestrol added to cattle feed and dienestrol diacetate added to poultry feed—have been studied intensively during the year. Pharmacological assays of tissues from stilbestrol-fed cattle indicate that steers fed 10 milligrams a day for 150 days have no detectable added estrogenic activity. Meat, fat, liver, kidney, and portions of the intestinal tract were examined.

Another market milk survey—the third of a series—was made to determine the presence and extent of antibiotics in milk. Low antibiotic concentrations, principally penicillin, were found in 6 percent of the 1,706 samples collected from the 48 States and the District of Columbia. A poll of authorities in the fields of antibiotic therapy, allergy, and pediatrics showed that a majority did not consider the concentrations of antibiotics found high enough to affect the population as a whole, but there was concern about adverse reactions in those people who are particularly sensitive to penicillin. It was obvious that some farmers are not heeding the required labeling warning on antibiotics for mastitis therapy to withhold milk from food use for 3 days after the last treatment.

Enforcement Statistics

The 16,287 establishment inspections conducted by FDA were divided into 12,575 for foods, 3,215 for drugs and devices, 376 for cosmetics and colors, and 121 for miscellaneous products and items covered by other acts. Of 17,675 domestic samples collected, 9,578

represented foods, 7,822 drugs and devices, 206 cosmetics, and 69 miscellaneous. Import samples collected totaled 11,973.

In the 249 criminal actions terminated (or terminated for some defendants) in the Federal courts during 1956, the fines paid or assessed in cases pending on appeal totaled \$197,067.80. The heaviest fine in a single case was \$12,000. In 66 actions the fines were \$1,000 or more. Jail sentences were imposed in 54 cases involving 68 individual defendants. The sentences ranged from 1 month to 6 years, and averaged 12 months and 3 days. Twenty-four individuals were required to serve the imposed sentences, and for 44 individuals the jail sentences were suspended on condition that violative practices be discontinued.

Records of actions terminated in the Federal courts were published in 1,240 notices of judgment issued during the year.

Table 2.—Number of samples on which criminal prosecutions and seizures were based and number of court actions instituted during the fiscal year 1956

Item	Total		Criminal prosecutions instituted		Seizures accomplished		Injunctions requested
	Violative samples*	Actions	Violative samples	Actions	Violative samples	Actions	
Total.....	2, 214	1, 053	890	209	1, 324	835	9
Foods.....	1, 305	774	271	79	1, 034	689	6
Drugs and devices.....	905	275	619	130	286	142	3
Cosmetics and colors.....	1	1	0	0	1	1	0
Caustic poisons.....	3	3	0	0	3	3	0

*The number of samples on which the actions are based always exceeds the number of actions; in seizures a variety of articles may be contained in a single shipment, while in criminal actions each sample usually represents a single shipment which forms one count of the action.

Table 3.—Import inspections and detentions during the fiscal year 1956

Item	Total	Inspected and refused entry	Inspected and released
Total.....	31, 602	5, 234	26, 368
Foods.....	28, 018	2, 790	25, 228
Drugs and devices.....	3, 429	2, 409	1, 020
Cosmetics, colors, and miscellaneous.....	155	35	120

Office of Vocational Rehabilitation

Community Enterprise Plays Key Role in Nationwide Rehabilitation Program

WORKING IN PARTNERSHIP with the Federal Office of Vocational Rehabilitation, State rehabilitation agencies and cooperating public and private community groups intensified the dramatic assault against disability during fiscal 1956.¹ A record number of 66,273 handicapped persons were prepared for and placed in jobs through the public program.² This was 14.3 percent above the 57,981 rehabilitated in 1955.

The sizeable increase in the number of persons rehabilitated through the public program last year was an indication of the mounting local interest in the problems of the handicapped—of the fact that in many areas coordinated activity on behalf of the handicapped was taking on the characteristics of a genuine community enterprise. The increase reflected greater awareness of the disabled as individuals with a basic right to the same opportunity for living a full life as our democratic society provides those without disability.

This growing grassroots concern with the handicapped and with their problems was in no little measure due to the enactment of Public Law 565, the Vocational Rehabilitation Amendments of 1954. This broad-gaged legislation greatly expanded the Federal grants-in-aid program for rehabilitation purposes, created new opportunities for public agency-private group cooperation, and provided for a multitude

¹ Unless otherwise indicated, all subsequent references to 1956 will be to the fiscal year—that is, to the period between July 1, 1955, and June 30, 1956.

² This total includes 65,640 persons rehabilitated by the State-Federal rehabilitation program as well as 633 established in employment through projects developed jointly by community groups and State rehabilitation agencies and financed, in part, by Federal grants.

of tools for strengthening State rehabilitation agency programs. The law started an all-out assault against disability in all its facets.

During 1956, there were many signs that America was beginning to harvest some of the fruits of the 1954 legislation.

Considerable progress was made in attacking problems relating both to the administration of the State-Federal rehabilitation program and to the social, economic and psychological aspects of the rehabilitation effort. Impressive strides were taken in the areas of rehabilitation research, in the development of facilities and techniques dedicated to the prevention and elimination of economic distress among the disabled, and in the training of urgently-needed rehabilitation workers.

During the year, public and private organizations across the nation linked arms in the expansion, establishment and operation of rehabilitation facilities dedicated to restoring the severely disabled to productive lives. Federal grants helped foster and finance 80 rehabilitation facilities and about 60 sheltered workshops in which severely disabled persons could begin their return to economic self-sufficiency.

Increased Federal funds made available by Congress in 1956 for basic support of State rehabilitation programs saw the States reacting in a positive fashion as State legislatures substantially increased their appropriations for rehabilitation purposes.

Cooperation between State rehabilitation agencies and voluntary groups at the community level was fully consistent with relationships existing between the Federal Office and the major national groups directly concerned with the rehabilitation of the handicapped. Goodwill Industries, the American Hearing Society, the American Foundation for the Blind, the National Society for Crippled Children and Adults, the United Cerebral Palsy Associations—these were among the many national organizations with which the Office maintained the closest possible working relations.

These cooperative efforts and the record number of rehabilitations achieved through the public program during 1956 notwithstanding, there remained a great gap between the number of handicapped persons restored to useful and productive lives and the number still in need of rehabilitation services.

Today, an estimated 2,000,000 Americans could be prepared for and placed in jobs if they had access to vocational rehabilitation. Each year, an estimated 250,000 persons disabled by accident, disease or congenital conditions come to need vocational rehabilitation.

In moving ahead against the massive disability problem in 1956, the Federal Office, the State rehabilitation agencies, and cooperating public and private groups have demonstrated their awareness of the need for a broad educational and informational effort. This effort has sought to foster acceptance of the handicapped by all segments of the community, to stimulate appreciation of their abilities, and to

generate a communitywide sense of responsibility for helping the handicapped to help themselves.

HIGHLIGHTS OF 1956

A record number of 66,273 handicapped persons was established in employment through the State-Federal rehabilitation program. This was 14.3 percent above the number rehabilitated in 1955, and the highest total since the State-Federal program's inception in 1921.

Funds appropriated by the States for rehabilitation purposes totaled \$18.5 million, an increase of 27 percent from the preceding year and of almost 50 percent over 1954.

In the first year after their rehabilitation, the 65,640 individuals placed in jobs by the State agencies will earn an estimated \$127.3 million, as compared to \$17.5 million before the rehabilitation process began. It is estimated that these rehabilitants will pay Federal income taxes at an annual rate of \$10.5 million. At this rate, it is estimated that within 3 years they will repay more than the entire amount expended by the Federal Government for the basic support program in 1956.

About 3,300 of these rehabilitants entered professional fields such as education, medicine, and engineering. About 8,100 went into skilled trades, and 5,600 into agriculture.

The Office of Vocational Rehabilitation granted \$1.2 million for 29 research and demonstration projects being conducted by public or private nonprofit organizations to help solve rehabilitation problems of nationwide concern.

The Office awarded 154 grants totaling \$1.1 million to 80 institutions of learning for the teaching of rehabilitation subjects. Rehabilitation students received 2,070 traineeships totaling \$1 million.

Working in conjunction with the Public Health Service, the Office approved Federal grants totaling \$5.3 million for the development of 42 comprehensive rehabilitation facilities in 35 States. These grants, made under terms of Public Law 482, were matched by an estimated \$23.4 million allocated by the recipient organizations.

REHABILITANTS: FURTHER FACTS

Almost every type of disabling condition was represented among the 65,640 men and women rehabilitated by the State-Federal vocational rehabilitation agencies in 1956. Chart I, page 227, divides those rehabilitated into eight broad disability categories.

Forty percent (26,300) of the 65,640 persons rehabilitated were disabled because of orthopedic impairments—amputations or other crippling conditions. Approximately three-fifths of the group of 26,300 rehabilitants were injured in accidents, and about one-fifth were handicapped as the result of poliomyelitis, osteomyelitis, or arthritis.

The occupations in which the rehabilitants were placed also are shown in Chart I. This vocational distribution has remained substantially the same for several years. It is noteworthy that only 7 percent of those rehabilitated in 1956 went into unskilled trades.

Major sources of referrals for rehabilitation were physicians, health agencies and hospitals. They referred for services 33 percent of the disabled persons established in gainful employment in 1956.

Fifteen percent of the total number of individuals rehabilitated were referred by public welfare agencies, and 7 percent by State employment offices. About 12 percent applied for services on their own initiative.

Almost half of the rehabilitants of 1956 had dependents, and 65 percent were men. The average age at the time of disablement was 25, whereas that at the time the rehabilitation process began was 35.

Developments during 1956 again demonstrated the economic values of vocational rehabilitation. About 49,000 of the 65,640 rehabilitants were unemployed when their rehabilitation began. An estimated 13,000 received public assistance payments at some time during the rehabilitation process. These assistance payments were at an estimated rate of \$11.1 million a year. The total cost of restoring these 13,000 persons to productive employment was about \$9.6 million.

The handicapped persons placed in jobs through the public vocational rehabilitation program last year will pay—during their working lives—an estimated \$10 in Federal income taxes for every Federal dollar invested in their rehabilitation. The estimated rate of annual earnings of the rehabilitants increased to about \$127.3 million as compared to \$17.5 million prior to their rehabilitation.

PROGRAM DEVELOPMENTS AT THE GRASSROOTS

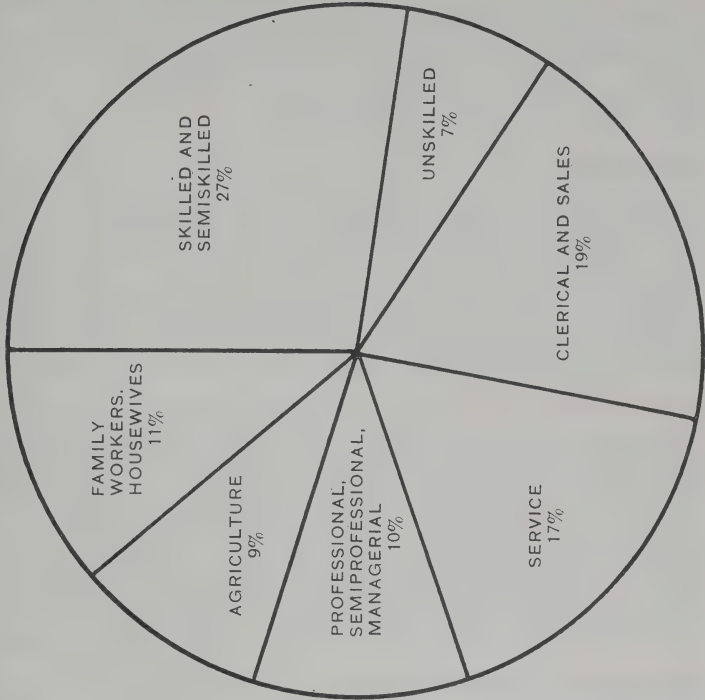
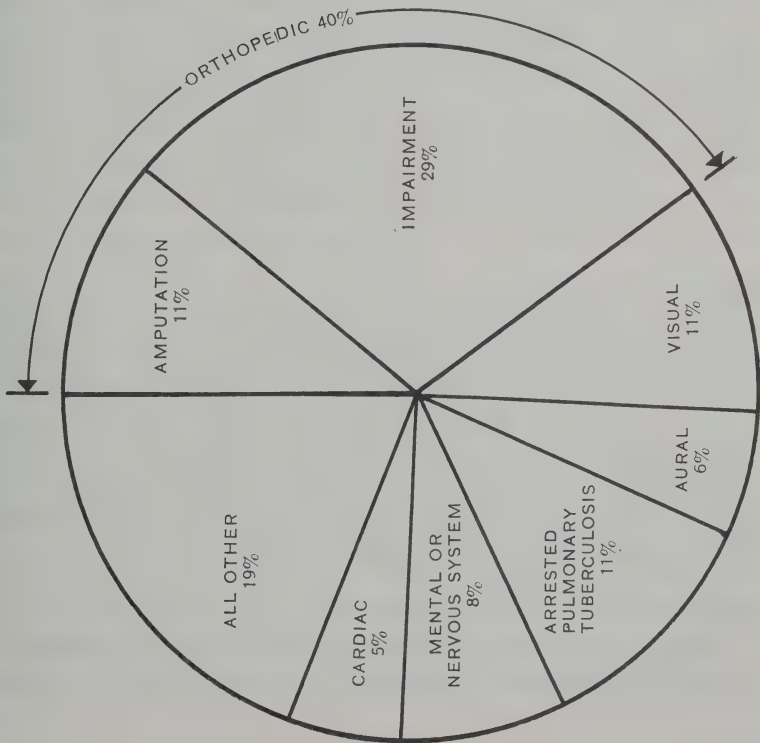
The major emphasis of Office efforts during 1956 was upon helping the State rehabilitation agencies to strengthen and broaden their programs and upon creating a pattern for maximum community cooperation on behalf of the disabled. Very important in this respect were administrative surveys conducted by Office teams in Georgia and Minnesota, respectively. These surveys, requested by the States, reviewed past accomplishments of the State agencies concerned, assessed current strengths, and made specific recommendations directed to the most effective development and expansion of the State programs.

Office personnel also conducted five Vocational Rehabilitation Accounting Workshops which were attended by more than 125 State agency staff members. The Workshops, held in Chicago, San Francisco, New York City, New Orleans, and Charlottesville, were dedicated to discussion of fiscal and accounting procedures under Public Law 565 and to delineation of State agency fiscal responsibilities in the disbursement of Federal grant funds.

Chart 1.—DISABILITIES AND MAJOR OCCUPATIONAL GROUPS
Percent of rehabilitants, by types of disability at acceptance and by major occupational group at closure, fiscal year 1956

DISABILITIES

MAJOR OCCUPATIONS



These and other Office operations in the administrative field played an important role in helping the State agencies to improve their programs as well as to strengthen their relationships with cooperating public and voluntary organizations.

State Plans

Under Public Law 565, States and Territories were called upon to submit new Plans for the approval of the Office. The State Plan sets forth the organization of the State rehabilitation program and the major policies and procedures to be adhered to in its operation. By the beginning of 1956, such Plans had been approved for 88 agencies in the 48 States, the District of Columbia, Alaska, Hawaii, and Puerto Rico.

Consistent with the objectives of Public Law 565, there was a general broadening of State Plans as compared to those of previous years. By the end of 1956, 39 of the State agencies had provided for the establishment of rehabilitation facilities and 36 had provided for the establishment of sheltered workshops. In 43 States, Plans provided for State agency-managed business enterprise programs for the blind or for those with other types of severe disability.

Basic Support of State Programs

The Federal Government made \$30 million available for basic support of State rehabilitation programs in 1956, an increase of \$6 million over the preceding year and of \$7 million over 1954. The States matched the Federal funds available for basic support of their programs with \$18.1 million of their own money. This was an increase of 26 percent over the preceding year, and of 46 percent over 1954. In 20 States, total State funds for rehabilitation jumped by one-third over the 1955 figure.

Expansion Grants

Federal grants totaling \$1,065,511 were made to public and to private, nonprofit groups in 1956 for the expansion of rehabilitation facilities and services. These grants were made for partial support of 102 projects in 41 States or Territories. Eleven of the awards went to State rehabilitation agencies, the balance (91) going to other public organizations and to voluntary groups. Eighty-five of the grants were made to foster the establishment or enlargement of rehabilitation facilities and sheltered workshops.

Extension and Improvement Projects

During 1956, the Federal Office made 104 grants totaling \$1 million to State rehabilitation agencies in partial support of projects dedi-

cated to extension and improvement of facilities or services for the handicapped. Fourteen of these projects involve new and vigorous programs in the mental health field, nine of them being concerned with the mentally ill, and the remainder with the mentally retarded.

Also among the 104 projects are 18 designed to serve the blind, 13 concerned with the development of sheltered workshops for the severely handicapped, and 7 designed to serve those with speech and hearing defects. Other projects provide specialized services to the tuberculous, the epileptic, and to persons with heart conditions. Still others are for the improvement of medical consultation and supervisory methods and techniques and the development of organized programs to demonstrate the employment potential of the disabled.

Cooperation in Administering the "Disability Freeze"

The "disability freeze" provisions of the social security legislation of 1954 brought about a close working relationship between State rehabilitation agencies and Bureau of Old-Age and Survivors Insurance Offices. These provisions were designed to protect the rights of persons covered by the social security law whose disability is so severe as to preclude them from engaging in substantial gainful employment. Under agreements existing in 46 States or Territories, BOASI offices refer applicants for the "disability freeze" to rehabilitation agencies for determining whether such applicants are disabled within the definition set down by the 1954 social security legislation.

During 1956, the State agencies had more than 94,000 "freeze" applicants referred to them for disability determinations. The agencies made 58,000 determinations during the year, screened 75,000 of the applicants for rehabilitation potential, and accepted 15,000 of these people for further consideration for rehabilitation services.

PROGRESS IN REHABILITATION RESEARCH

During 1956, the Office of Vocational Rehabilitation approved grants in partial support of 29 new special research and demonstration projects, 11 more than were approved in 1955. The grants totaled \$925,000. This sum was in addition to \$255,720 granted for the continuation of 10 projects initiated in 1955.

The new projects, all of which show promise of contributing to solution of a vocational rehabilitation problem of nationwide concern, were approved upon the recommendation of the 12-member National Advisory Council on Vocational Rehabilitation which reviews all special project grant applications. Office Director Mary E. Switzer is chairman of the Council, which is made up of nationally known leaders with an interest in the problems of the disabled.

Following is a listing of the organizations which received research and/or demonstration grants during 1956 with a brief description of each of the projects for which grants were awarded:

Highland View Hospital, Cleveland, Ohio, \$38,395 to demonstrate that rehabilitation is possible for long-term hospital patients disabled by severe chronic diseases; New York Tuberculosis and Health Association, Inc., New York, N. Y., \$10,000 to devise and provide appropriate nonmedical rehabilitation services to unhospitalized patients being treated for tuberculosis; Boston Psychopathic Hospital, Boston, Mass., \$47,265 to demonstrate the effectiveness of coordinated efforts of hospital, expatients, patient groups, and community agencies in the rehabilitation of the mentally ill.

Mount Zion Hospital, San Francisco, Calif., \$17,856 to demonstrate the role of rehabilitation as part of a community home-care program for the chronically ill; California Bureau of Vocational Rehabilitation, Sacramento, Calif., \$24,692 to determine the effectiveness of a rehabilitation program for injured workmen covered by workmen's compensation; Institute of Physical Medicine and Rehabilitation, New York, N. Y., \$9,525 to explore problems involved in the rehabilitation of disabled Puerto Ricans living in the U. S.

George Washington University Hospital, Washington, D. C., \$6,614 to develop effective methods of dealing with the psychological and vocational adjustment problems of individuals with multiple sclerosis; Montefiore Hospital, New York, N. Y., \$27,940 to demonstrate economic and psychological benefits of rehabilitation for permanently shut-in, chronically ill persons; Illinois Public Aid Commission, Chicago, Ill., \$44,500 to determine the extent to which disabled persons confined to public and private nursing homes can be rehabilitated; Alabama Society for Crippled Children and Adults, Montgomery, Ala., \$27,800 to demonstrate that an organized marketing program can increase employment opportunities for the home-bound disabled; Epi-Hab, Incorporated, Los Angeles, Calif., \$27,041 for a workshop to demonstrate that epileptics can effectively perform many kinds of jobs from which they have been previously excluded.

National Jewish Hospital, Denver, Colo., \$36,591 to develop improved methods for use within a hospital in the rehabilitation of those undergoing extended treatment for chronic tuberculosis; American Hearing Society, Washington, D. C., \$15,869 to develop standards and guides for use by communities in the establishment of speech and hearing rehabilitation facilities; Site, Inc., Topeka, Kansas, \$10,600 for research into the possibility of developing—through electronic and other means—practical sight substitutes for the blind.

Davis Memorial Goodwill Industries, Washington, D. C., \$92,056 to demonstrate that more severely disabled persons can be rehabilitated

through establishing a complete rehabilitation center in close connection with a sheltered workshop program; Medical Society of the District of Columbia, Washington, D. C., \$18,576 to analyze the role of a medical society in total community rehabilitation planning; Western Pennsylvania Heart Association, Pittsburgh, Pa., \$18,960 to evaluate the effect of employment on 1,000 cardiac patients whose work tolerance was prescribed by a cardiac work classification unit.

Cleveland Hearing and Speech Center, Cleveland, Ohio, \$7,932 to improve hearing tests commonly used in evaluating speech discrimination in certain types of deafness in order to make more effective job selections; Industrial Home for the Blind, Brooklyn, N. Y., \$20,000 to define successful methods used in the rehabilitation of the deaf-blind, and to develop a manual which can be used nationally in setting up rehabilitation services and identifying job opportunities for them; National Health Council, New York, N. Y., \$5,000 to identify personnel needs in fields related to the rehabilitation program, and to develop projects to increase the supply of trained personnel.

National Association of the Deaf, Berkeley, Calif., \$17,200 to inventory the types of jobs performed by deaf persons throughout the Nation, and to evaluate factors associated with occupational success or failure; New York University-Bellevue Medical Center, New York, N. Y., \$11,340 to determine the extent to which a rehabilitation team can return homebound disabled persons to employment outside the home; Washburn University of Topeka, Topeka, Kansas., \$31,877 to study the responsibilities, knowledge, and skills required of the administrator of the several therapies used in mental hospitals with a view to increasing the effectiveness of those services in rehabilitating the mentally ill.

MacDonald Training Center Foundation, Inc., Tampa, Fla., \$40,000 to evaluate the potentials for rehabilitation of mentally retarded youths with muscular, orthopedic, and emotional impairments; Robert Breck Brigham Hospital, Boston, Mass., \$38,138 to develop pre-employment evaluation and work-hardening techniques for use with rheumatoid arthritic patients as a basis for their return to remunerative employment; Our Lady of Fatima Hospital, North Providence, R. I., \$30,000 to determine and demonstrate the services needed for rehabilitation of chronically ill and disabled workers 45 years of age and older; Minneapolis Society for the Blind, Minneapolis, Minn., \$142,365 to establish a regional facility to provide adjustment, training, and workshop services to blind persons from a number of States; Crotched Mountain Foundation, Greenfield, N. H., \$22,913 to demonstrate the value of the social group work method in the rehabilitation of severely disabled persons in a rehabilitation center; Anderson Orthopedic Hospital and Rehabilitation Center, Arlington, Va., \$83,000 to develop a rehabili-

tation center in the Washington metropolitan area as a guide for rehabilitation centers established in other areas.

TRAINING OF REHABILITATION PERSONNEL

The Office's training program, which completed its second year as of June 1956, experienced considerable growth. The program is designed to help overcome the shortage of professional personnel in the rehabilitation field, improve the knowledge and skills of those already in rehabilitation work and increase the awareness of rehabilitation techniques, methods, and objectives among workers in related fields.

During the year, the Office made available to educational institutions and individuals for training purposes, more than double the amount granted in 1955. Of the total amount granted, \$1.1 million went into 154 grants for teaching in such areas as rehabilitation counseling, rehabilitation aspects of medicine, social work, occupational therapy and physical therapy. The remainder went for traineeships to 2,070 students in these and other areas.

In administering the training program, the Office has been aided by an Advisory Committee on Training Policy. Composed of leaders in the rehabilitation and education fields, it consults with and advises the Office in the development of long-range training policies.

In addition, six ad hoc technical panels—composed of professional personnel in the fields of medicine, rehabilitation counseling, nursing, social work, occupational therapy and physical therapy—cooperated with the Office in reviewing the individual teaching and traineeship applications. These panels materially assisted the Office in achieving the most equitable and adequate geographical distribution of grants within the overall framework of long-range training needs and policies.

The Office greatly strengthened its liaison and informational activities vis-à-vis cooperating educational institutions. A comprehensive informational bulletin, containing background data on the training program along with specific details on grants and instructions for the preparation and submission of grant applications, was distributed to these institutions and other interested organizations.

GUIDANCE AND SETTING OF REHABILITATION STANDARDS

During 1956, the Federal Office greatly emphasized guidance and consultative services to State rehabilitation agencies and working closely with State personnel in the solution of common problems. The Ninth Annual Guidance, Training and Placement Workshop, held in Washington, D. C., early in June, was among the major Federal-State cooperative efforts in the guidance and standards fields.

The Workshop saw committees of State agency personnel, assisted by

Office consultants, develop reports and recommendations in such areas as counselor service utilization, use of occupational information, and the use of community resources. Eighty-one representatives of 58 State agencies participated in the Workshop.

Among other significant developments in standards and procedures was Office sponsorship of orientation training for 405 newly employed State counselors through 17 regional institutes. The orientation program was based upon a syllabus prepared by OVR in cooperation with the States' Vocational Rehabilitation Council.

Among the many specialized consultative efforts during the year was one in which Federal Office personnel served in resource and consultant capacities in a pioneering workshop conducted by the American Foundation for the Blind on competitive, sheltered, and homebound employment of sightless persons with hearing impairments.

Cooperative Relationships

In 1956, the Office effected an agreement with the Veterans Administration for referral of disabled veterans from VA field stations to State rehabilitation agencies. This cooperative agreement was fully in keeping with a recommendation made by the President's Commission on Veterans' Pensions that extended use be made of the State-Federal program in the rehabilitation of handicapped veterans with peace-time service or with non-service-connected disabilities.

Among other cooperative ventures in the guidance and standards areas during the year was the Office's participation in a conference concerned with community planning for mental retardation and jointly sponsored by several Federal Departments and the Josiah Macy, Jr., Foundation, Princeton, N. J. As of the year's end, the Foundation was preparing a report on the conference which is expected to prove of considerable value to rehabilitation personnel and other groups concerned with the problems of mental retardation.

During the year, the Federal Office cooperated with the American Foundation for the Blind in sponsoring a 5-day seminar on Rehabilitation Centers for the Blind. The seminar, held in New Orleans, was attended by representatives of full-time rehabilitation centers and was directed to the development of principles and standards for the operation of such centers. A report on the seminar, in process of publication at year's end, is expected to have wide circulation.

Still another cooperative venture in 1956 was the joint development and issuance by the Federal Office and the Bureau of Public Assistance of a publication entitled "Working Together to Rehabilitate the Needy Disabled." The booklet is designed to foster State Rehabilitation-Public Assistance agency cooperation at the community level in rehabilitating persons on the public assistance rolls.

STIMULATING EMPLOYMENT FOR THE DISABLED

The Office during 1956 stepped up its many direct activities designed to stimulate employment of the handicapped. In doing so, it encouraged research into such diverse areas as employer attitudes toward the handicapped and the experience of college-level deaf persons in taking examinations for Federal employment.

An employer attitudes survey is being conducted in the Boston area and preliminary results are scheduled to be announced during fiscal 1957. The project involving the deaf is actually a pioneering or pilot effort which was conducted by the Civil Service Commission in cooperation with the Federal Office, the National Association of the Deaf, and Gallaudet College.

Tentative recommendations based upon evaluation of the experience of deaf examinees on civil service tests are expected to improve the opportunities of the deaf for various types of Government jobs. An important byproduct of the pilot project has been the revision of announcement language for many civil service examinations so that more deaf persons will be encouraged to apply for Federal posts.

Among specific placement activities of the Office during 1956 were the issuance of two releases to Federal employing officers to encourage Federal agency employment of the handicapped and the collection and distribution to State rehabilitation agencies of data on employment opportunities open to handicapped clients both in nationwide businesses such as Sears Roebuck and Company, and in public agencies such as the U. S. Public Health Service. The release of these data and follow-up efforts have resulted in the development of many jobs for the handicapped in the Sears and U. S. PHS organizations.

The Vending Stand Program for the Blind

Considerable progress was made in fostering the employment of blind persons through the Vending Stand Program for the Blind. Administered by State agencies in partnership with the Federal Office, it was brought into being by the Randolph-Sheppard Act of 1936 and was strengthened by legislative amendments in 1954.

A record number of 1,804 blind vending stand operators was in business under the program as of June 30, 1956. This figure compares with the 1,721 operators as of the same period in 1955. The net average income of the operators during 1956 was \$2,532, an increase of \$232 over the preceding year.

The total earnings of the operators and their blind employees was \$5.1 million as compared to \$4.5 million in 1955. Gross vending stand sales totaled \$25.9 million as compared to \$23.5 million in 1955.

The Randolph-Sheppard amendments of 1954 augmented the opportunities for the blind by providing for preference to blind individuals in the operation of vending stands on Federal property and stipulating that each agency having jurisdiction over such property must prescribe regulations to assure such preference. Previously, preference had been assured for blind persons in the operation of stands in Federal buildings only.

As of June 30, 1956, preference regulations had been established, after detailed consultation between Office specialists and the various Agencies concerned, in eight major establishments. These are the Departments of Health, Education, and Welfare; Treasury, Defense, Commerce, and Post Office; and General Services Administration, Atomic Energy Commission and Tennessee Valley Authority.

DEVELOPMENTS IN MEDICINE AND PHYSICAL RESTORATION

In 1956, significant advances were made both in developing of medical techniques and treatment methods for rehabilitating the severely disabled and in planning facilities to serve them. The pioneering element, so basic to the research projects for which Federal grants were made, was especially evident in the area of rehabilitation medicine. Particularly was this the case in the field of mental health.

Rehabilitation Facility Construction

Cooperative efforts of the Office of Vocational Rehabilitation, the U. S. Public Health Service and various State, and community groups made possible the development of plans for construction of comprehensive rehabilitation centers for the severely handicapped. This cooperative progress was made under the provisions of the Medical Facilities Survey and Construction Act of 1954 (Public Law 482).

At the year's end, the Office and the Public Health Service jointly had approved the granting of Federal funds totaling \$5,333,803 in support of 42 comprehensive centers in 35 States. These grants were being matched with more than \$20 million from the State and community groups organizing and constructing the Centers.

Of the 42 projects, five will provide services to persons, all of whom have the same type of disability. Thus, one project will concern itself only with psychiatric cases, two with speech and hearing disorders, one with dental problems, and one with cerebral palsy.

Mental Health: Plans and Progress

Rehabilitation of persons with mental handicaps received major emphasis in 1956. In furtherance of a plan initiated during 1955, 3 regional conferences were held and attended by State Hospital and

State rehabilitation agency personnel working with the mentally handicapped. The meetings, jointly sponsored by the Federal Office of Vocational Rehabilitation, the National Institute of Mental Health, and a university in each of the areas involved, helped lay a broad foundation for the rehabilitation of mental patients in need of vocational adjustment when ready for discharge from the hospital.

Aided by Federal funds, 12 State agencies increased their staffs and strengthened their programs of services to the mentally ill during the year. As of the year's end, 22 States had one or more rehabilitation counselors assigned to work exclusively with the mentally ill.

During the year, Federal funds totaling \$450,000 went to State agencies and other public or private, nonprofit groups for the development of specific projects concerned with the rehabilitation of the mentally disturbed or the mentally deficient. Among the States in which these projects are located are Maine, Vermont, New Hampshire, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Tennessee, Florida, Kansas, Missouri, Wisconsin, Illinois, South Dakota, Nebraska, Colorado, Texas, and Puerto Rico.

Very encouraging progress in helping the mentally retarded was made during 1956 at a work adjustment center operated jointly by the State rehabilitation agency and the Council of Jewish Women in Milwaukee, Wisconsin. Of 41 mentally retarded persons with IQ's ranging from 25 to 76 assisted at the Center in its first year of operation, 21 were returned to productive employment.

INFORMATIONAL AND EDUCATIONAL ACTIVITIES

In keeping with the mandate laid down by Public Law 565, the Office greatly stepped up its efforts to inform the public as to the vocational rehabilitation program and the problems of the disabled. The Office Director delivered numerous addresses to national and statewide audiences. Numerous special reports, publications and releases bearing on specific rehabilitation developments were issued, among them an illustrated pamphlet explaining the provisions of Public Law 565 in lay language and a flier designed to inform disability freeze applicants of the nature and scope of vocational rehabilitation services.

During the year, the Office concentrated upon helping State rehabilitation agencies to develop sound public information programs and to deal with specific informational problems. The Office prepared a comprehensive Public Information "how-to-do-it" kit for use of State agency personnel, the kit containing both instructional materials and samples of the various types of informational tools.

Office Information Specialists also conducted three public information training institutes for State agency personnel. The institutes, held in Washington, D. C., were attended by State Agency Directors, Informational Specialists and other personnel charged with informational or public relations responsibilities. Well over half the State agencies had representatives at one or more of the sessions.

The year also saw the development of a number of cooperative ventures in the public relations area involving both public and private agencies. The Office, which cooperates with the Veterans' Administration and the President's Committee on Employment of the Physically Handicapped on a year-round basis in promoting the employment and rehabilitation of the handicapped, linked arms with these two agencies and with a private, nonprofit foundation (The Morgensern Foundation of New York) in sponsoring the first nationwide contest for handicapped amateur artists. Drawing more than 1,000 entries it served to focus the Nation's attention upon the creative abilities of the handicapped and to illustrate their overall rehabilitation potential.

INTERNATIONAL COOPERATIVE EFFORTS

During 1956, the Office participated in the training of 107 persons from abroad who had come to the United States to observe the rehabilitation program or to study rehabilitation subjects at educational institutions. The persons who received such training—nearly 50 percent more than were trained in 1955—came from 30 different nations, many of them in underdeveloped areas of the world.

In working with these people from abroad, Office personnel cooperated with the International Cooperation Administration of the Department of State, the United Nations, various other Federal Departments, and numerous American institutions of learning. Office personnel also provided rehabilitation specialists in Mexico and India with consultation and advice directed to the development of rehabilitation counselor training courses within these two countries.

The Office also helped to recruit American rehabilitation specialists for service abroad in such countries as Brazil and Egypt and distributed informational materials bearing on rehabilitation developments to more than 50 countries on a regular basis.

Table 1.—Number of referrals and cases, by agency, fiscal year 1956

[Corrected to September 30, 1956]

Agency ¹	Referrals				Cases				
	During fiscal year			Re-main-ing at end of year ³	During fiscal year				Re-main-ing at end of year ⁶
	Total	Ac-cepted for serv-ices	Not ac-cepted for serv-ices ²		Total active load (receiv-ing serv-ices)	Closed from active load			
						Reha-bili-tated	After rehabilitation plan in-i-tiated ⁴	Before rehabilitation plan in-i-tiated ⁵	
United States, total.....	290,398	93,917	95,705	100,776	221,518	65,640	6,178	14,881	134,819
Alabama.....	7,252	2,599	929	3,724	7,011	1,956	219	372	4,464
Alaska.....	719	123	164	432	185	33	2	15	135
Arizona:									
General.....	1,706	493	501	712	896	289	46	13	548
Blind.....	102	39	24	39	118	28	5	11	74
Arkansas.....	3,954	1,526	1,247	1,181	3,590	1,350	95	244	1,901
California.....	16,390	3,220	10,471	2,699	8,541	1,724	640	1,258	4,919
Colorado:									
General.....	2,114	882	586	646	1,784	570	213	97	904
Blind.....	261	49	87	125	177	44	4	30	99
Connecticut:									
General.....	3,079	1,492	828	759	3,605	927	170	312	2,196
Blind.....	186	66	83	37	168	50	17	6	95
Delaware:									
General.....	1,273	511	508	254	1,202	480	24	97	601
Blind.....	58	30	20	8	68	23	9	9	27
District of Columbia.....	2,248	642	802	804	1,423	320	111	142	850
Florida:									
General.....	8,373	2,747	3,042	2,584	5,907	1,837	172	510	3,388
Blind.....	3,050	299	1,653	1,098	810	250	46	39	475
Georgia.....	19,627	5,337	5,782	8,508	11,393	5,093	213	508	5,579
Hawaii:									
General.....	764	176	348	240	563	183	29	11	340
Blind.....	26	6	10	10	76	5	4	5	62
Idaho:									
General.....	1,382	224	576	582	501	156	12	9	324
Blind.....	39	11	12	16	82	5	5	0	22
Illinois.....	11,054	5,417	2,768	2,869	12,126	4,139	359	636	6,992
Indiana:									
General.....	2,749	1,519	621	609	4,222	1,067	109	380	2,666
Blind.....	276	90	83	103	268	45	24	32	167
Iowa:									
General.....	4,801	1,658	1,177	1,966	3,484	1,105	75	178	2,126
Blind.....	135	24	38	73	63	11	1	2	49
Kansas:									
General.....	3,404	737	1,235	1,432	1,879	440	54	147	1,238
Blind.....	286	61	91	134	177	41	9	15	112
Kentucky.....	6,034	932	2,550	2,552	2,441	551	97	209	1,584
Louisiana:									
General.....	4,605	2,261	875	1,469	5,419	1,400	69	273	3,677
Blind.....	601	167	188	246	518	105	16	7	390
Maine:									
General.....	2,275	379	955	941	995	215	21	76	683
Blind.....	176	48	78	50	88	17	11	3	57
Maryland.....	4,105	1,873	822	1,410	4,507	1,174	98	415	2,820
Massachusetts:									
General.....	3,710	1,215	1,147	1,348	2,776	794	72	163	1,747
Blind.....	308	90	49	169	283	54	5	23	201
Michigan:									
General.....	8,334	3,441	1,779	3,114	8,498	2,938	295	189	5,076
Blind.....	316	180	71	65	420	130	24	33	233
Minnesota:									
General.....	5,029	1,101	1,270	2,658	3,677	679	43	89	2,866
Blind.....	329	114	91	124	373	65	33	34	241
Mississippi:									
General.....	2,816	992	774	1,050	2,728	841	61	175	1,651
Blind.....	708	329	251	128	868	255	34	17	562
Missouri:									
General.....	3,240	1,702	764	774	3,288	1,331	44	162	1,751
Blind.....	616	219	157	240	514	135	20	18	341
Montana:									
General.....	1,464	426	470	568	1,086	369	12	39	666
Blind.....	177	16	124	37	50	18	1	1	30
Nebraska:									
General.....	1,234	816	68	350	1,817	584	17	11	1,205
Blind.....	199	81	78	40	140	58	1	0	81
Nevada.....	610	95	395	120	173	54	3	3	111

See footnotes at end of table.

Table 1.—Number of referrals and cases, by agency, fiscal year 1956—Con.

[Corrected to September 30, 1956]

Agency ¹	Referrals				Cases				
	During fiscal year			Re-main-ing at end of year ³	During fiscal year				Re-main-ing at end of year ⁶
	Total	Ac-cepted for serv-ices	Not ac-cepted for serv-ices ²		Total active load (receiv-ing serv-ices)	Closed from active load			
						Reha-bilitated	After rehabil-itation plan in-iti-ated ⁴	Before rehabil-itation plan in-iti-ated ⁵	
New Hampshire:									
General.....	539	234	170	135	480	105	22	90	263
Blind.....	56	45	7	4	92	18	9	8	57
New Jersey:									
General.....	3,301	984	992	1,325	2,460	574	98	231	1,557
Blind.....	600	106	196	298	423	99	6	10	308
New Mexico:									
General.....	1,089	257	476	356	604	242	34	18	310
Blind.....	179	39	57	83	93	22	6	6	59
New York:									
General.....	19,209	6,512	7,403	5,294	13,302	4,099	377	1,103	7,723
Blind.....	956	312	192	452	764	212	29	66	457
North Carolina:									
General.....	7,770	4,509	1,915	1,346	8,961	2,730	118	525	5,588
Blind.....	1,224	466	473	285	1,454	367	27	89	971
North Dakota.....	1,273	353	225	695	747	200	5	21	521
Ohio:									
General.....	5,510	1,553	1,692	2,265	3,659	1,309	70	226	2,054
Blind.....	434	194	74	166	676	159	20	34	463
Oklahoma.....	5,619	2,314	2,296	1,009	6,697	1,327	71	762	4,537
Oregon:									
General.....	5,133	1,024	2,139	1,970	2,820	760	96	289	1,675
Blind.....	191	46	87	58	149	38	4	6	101
Pennsylvania:									
General.....	21,081	7,587	6,914	6,580	14,707	4,200	397	980	9,130
Blind.....	3,059	339	1,534	1,186	1,176	244	72	120	740
Puerto Rico.....	5,168	1,152	802	3,214	2,887	816	52	132	1,887
Rhode Island:									
General.....	894	305	204	385	802	315	25	11	451
Blind.....	58	57	0	1	192	30	7	8	147
South Carolina:									
General.....	5,734	1,942	1,664	2,128	4,687	1,512	65	224	2,886
Blind.....	379	121	176	82	248	95	7	19	127
South Dakota:									
General.....	909	287	91	531	828	169	12	22	625
Blind.....	117	22	56	39	55	14	2	2	37
Tennessee:									
General.....	5,329	2,145	1,025	2,159	4,672	1,852	120	182	2,518
Blind.....	797	185	135	477	589	150	8	8	423
Texas:									
General.....	10,154	2,719	2,623	4,812	9,135	2,182	90	594	6,269
Blind.....	1,290	364	475	451	784	299	17	29	439
Utah.....	1,295	372	374	549	1,147	347	45	24	731
Vermont:									
General.....	907	265	525	117	642	159	37	50	396
Blind.....	56	25	16	15	67	16	7	4	40
Virginia:									
General.....	11,259	3,193	4,738	3,328	6,974	2,250	100	765	3,859
Blind.....	493	119	150	224	227	88	14	5	120
Washington:									
General.....	6,251	1,433	2,654	2,164	3,591	942	210	298	2,141
Blind.....	184	60	74	50	157	27	8	29	93
West Virginia.....	13,143	3,861	3,711	5,571	8,190	2,078	59	779	5,274
Wisconsin:									
General.....	5,432	1,682	2,274	1,476	4,789	1,450	143	90	3,106
Blind.....	148	72	45	31	193	60	18	4	111
Wyoming.....	984	207	409	368	470	146	27	0	297

¹ In States which have 2 agencies, the agency under the State board of vocational education is designated as "general," and the agency under the State commission or other agency for the blind is designated as "blind."

² Services declined, services not needed, individual not eligible, individual needing services other than vocational rehabilitation, referred to other agencies, migratory shifting of the individual, etc.

³ Eligibility for rehabilitation not yet determined.

⁴ Closed after rehabilitation plan was agreed upon and approved by supervising official; received rehabilitation service but never reached the point of employment because of personal factors, illness, aggravated disability, etc.

⁵ Closed prior to initiation of rehabilitation plan, because of indifference of individual; probable increase in degree of disability; loss of contact, etc.

⁶ In process of rehabilitation on June 30, 1956.

Table 2.—*Vocational rehabilitation grants, 1956, State divisions of vocational rehabilitation*

State or Territory	Support grants	Extension and improvement grants	Expansion grants ¹	Total
Total.....	\$26, 250, 052	\$870, 958	\$997, 812	\$28, 118, 822
Alabama.....	962, 134	28, 196	44, 797	1, 035, 127
Arizona.....	185, 640	2, 097	6, 133	193, 870
Arkansas.....	601, 369	17, 255	26, 802	645, 426
California.....	1, 780, 220	113, 418	91, 476	1, 985, 114
Colorado.....	196, 979	6, 512	24, 005	227, 496
Connecticut.....	317, 053	16, 038	47, 307	380, 398
Delaware.....	137, 588	—	—	137, 588
Florida.....	756, 156	17, 870	28, 309	802, 335
Georgia.....	1, 750, 735	17, 324	12, 762	1, 780, 821
Idaho.....	66, 355	—	—	66, 355
Illinois.....	1, 359, 118	18, 060	69, 637	1, 446, 815
Indiana.....	360, 738	—	5, 954	366, 692
Iowa.....	463, 703	21, 000	21, 870	506, 573
Kansas.....	225, 199	9, 336	—	234, 535
Kentucky.....	261, 482	25, 893	18, 788	306, 143
Louisiana.....	781, 648	—	19, 586	801, 234
Maine.....	137, 649	7, 722	5, 533	150, 904
Maryland.....	333, 028	—	5, 500	338, 528
Massachusetts.....	353, 006	37, 439	23, 897	414, 342
Michigan.....	1, 049, 513	30, 506	52, 017	1, 132, 036
Minnesota.....	478, 453	22, 341	48, 000	548, 794
Mississippi.....	265, 432	—	—	265, 432
Missouri.....	501, 734	8, 411	58, 607	568, 752
Montana.....	128, 230	—	—	128, 230
Nebraska.....	182, 357	5, 384	33, 284	221, 025
Nevada.....	30, 584	1, 716	—	32, 300
New Hampshire.....	48, 240	5, 000	3, 563	56, 803
New Jersey.....	550, 564	47, 430	—	597, 994
New Mexico.....	110, 961	7, 056	—	118, 017
New York.....	1, 762, 447	57, 811	15, 920	1, 836, 178
North Carolina.....	763, 640	38, 396	28, 467	830, 503
North Dakota.....	168, 272	4, 211	4, 260	176, 743
Ohio.....	460, 677	56, 737	—	517, 414
Oklahoma.....	633, 941	20, 490	13, 014	667, 445
Oregon.....	331, 756	11, 886	15, 652	359, 294
Pennsylvania.....	2, 055, 081	40, 378	101, 816	2, 197, 275
Rhode Island.....	112, 761	3, 718	—	116, 479
South Carolina.....	478, 943	12, 000	500	491, 443
South Dakota.....	105, 422	2, 696	4, 100	112, 218
Tennessee.....	613, 344	9, 600	17, 000	639, 944
Texas.....	816, 523	23, 480	52, 225	892, 228
Utah.....	135, 294	6, 839	—	142, 133
Vermont.....	115, 507	—	—	115, 507
Virginia.....	757, 168	31, 077	22, 366	810, 611
Washington.....	494, 420	10, 292	17, 014	521, 726
West Virginia.....	752, 869	17, 590	13, 040	783, 499
Wisconsin.....	502, 057	23, 369	22, 800	548, 226
Wyoming.....	89, 002	—	—	89, 002
Alaska.....	76, 340	5, 000	1, 147	82, 487
Hawaii.....	151, 072	3, 000	2, 027	156, 099
Puerto Rico.....	249, 439	20, 055	12, 889	282, 393
Dist. of Columbia.....	248, 209	6, 319	5, 768	260, 296

¹ Includes grants to non-profit agencies for projects developed in cooperation with State Divisions of Vocational Rehabilitation.

Table 3.—*Vocational rehabilitation grants, 1956, State commissions or agencies for the blind*

State or Territory	Support grants	Extension and improvement grants	Expansion grants ¹	Total
Total.....	\$3, 749, 948	\$132, 153	\$67, 699	\$3, 949, 800
Arizona.....	36, 722	-----	-----	36, 722
Colorado.....	37, 959	-----	-----	37, 959
Connecticut.....	51, 061	-----	-----	51, 061
Delaware.....	42, 273	5, 000	-----	47, 273
Florida.....	286, 786	-----	10, 708	297, 494
Idaho.....	9, 546	-----	-----	9, 546
Indiana.....	49, 273	1, 500	-----	50, 773
Iowa.....	24, 949	2, 325	-----	27, 274
Kansas.....	87, 736	4, 189	-----	91, 925
Louisiana.....	138, 104	-----	-----	138, 104
Maine.....	37, 702	-----	-----	37, 702
Massachusetts.....	75, 881	600	4, 600	81, 081
Michigan.....	110, 528	-----	-----	110, 528
Minnesota.....	124, 787	-----	-----	124, 787
Mississippi.....	174, 733	-----	-----	174, 733
Missouri.....	192, 850	-----	-----	192, 850
Montana.....	28, 649	-----	-----	28, 649
Nebraska.....	59, 062	4, 291	-----	63, 353
New Hampshire.....	21, 212	-----	-----	21, 212
New Jersey.....	140, 140	-----	-----	140, 140
New Mexico.....	30, 487	-----	-----	30, 487
New York.....	270, 576	72, 464	-----	343, 040
North Carolina.....	450, 370	-----	-----	450, 370
Ohio.....	163, 645	-----	23, 930	187, 575
Oregon.....	49, 462	2, 920	-----	52, 382
Pennsylvania.....	284, 478	-----	21, 456	305, 934
Rhode Island.....	27, 936	-----	-----	27, 936
South Carolina.....	41, 719	-----	-----	41, 719
South Dakota.....	33, 019	1, 081	-----	34, 100
Tennessee.....	241, 555	-----	5, 000	246, 555
Texas.....	212, 068	23, 978	-----	236, 046
Vermont.....	18, 237	-----	2, 005	20, 242
Virginia.....	49, 123	-----	-----	49, 123
Washington.....	41, 571	12, 075	-----	53, 646
Wisconsin.....	74, 706	1, 730	-----	76, 436
Hawaii.....	31, 043	-----	-----	31, 043

¹ Includes grants to non-profit agencies for projects developed in cooperation with State Commissions or Agencies for the Blind.

Saint Elizabeths Hospital

THE YEAR JUST CLOSED has been one of change and development. As for the physical plant, two new buildings, the Dorothea Lynde Dix Pavilion and the new Saint Elizabeths Chapel have been opened, while plans have been proceeding apace for the new Maximum Security Building. The Men's Receiving Building has become the William A. White Building and its function will be that of an intermediate treatment building. The former Women's Receiving Building, renamed the Charles H. Nichols Building, has become a part of the Geriatric Service. The Oaks Building, formerly used for women, has been vacated and will be demolished in the near future.

Perhaps even more important than the new buildings is the development of new programs for the treatment and care of patients. Throughout the hospital the use of administrative discussion groups and an increasing degree of permissiveness allowed to the patient has been developed. This program has been aided by the services of a social scientist. In the Dix Pavilion the new development of non-stratification of patients has taken place. The building is particularly suitable for this, having no large dormitories, and the plan of admitting patients to the same ward whether they be disturbed, suicidal or quiet has worked out very satisfactorily. The program of self-government carried out in the Maximum Security Section has been further developed and a considerable additional number of outside groups of volunteer visitors have come to the hospital. These are but a few of the changes of a progressive nature which have taken place during the year.

The most significant event of the year was the dedication on April 13 of the Dorothea Lynde Dix Pavilion by the Vice President of the United States, The Honorable Richard M. Nixon. The hospital was greatly honored on this occasion by the presence of Vice President

Nixon, the Secretary of Health, Education, and Welfare, and a large number of other distinguished citizens. Earlier, on December 5, the date stone of the Chapel was set, in ceremonies participated in by Chaplains of the three major faiths, the Superintendent, and two patients—perhaps the first occasion on which patients (for whose benefit the hospital is operated) took an official part in such a ceremony.

The use of the tranquillizing drugs, noted in last year's report, has been extended with greatly beneficial effects in the general atmosphere of the hospital and the comfort of the patients. The use of these drugs has permitted the granting of ground privileges to a much larger number of patients, and has to a very substantial extent increased the return of patients to the community. The number of patients in the hospital has shown an actual decrease during the current year. The average number of patients in the hospital during June 1955, for example, was 7,277, but one year later this number had dropped to 7,010, a decline of 267. Careful studies are being made by the hospital's statistician to determine how lasting are the effects of the drugs on the discharge rate.

Note should be made of the publication of "Centennial Papers", a volume made up of the addresses given at the Centennial Celebration of the hospital in 1955. During the year the hospital was honored by the visits of physicians and others from 26 countries.

Division of Medical Services

CLINICAL BRANCHES

The psychiatric care of the patients is assigned to the three clinical branches. The Medicine and Surgery Branch operates the Medical and Surgical Building and the Tuberculosis Service, where the patients who are acutely physically ill are cared for. All of the other activities of the hospital, such as Laboratory, Occupational Therapy, Volunteer Services, Maintenance and Construction, are auxiliary to the work of these four branches.

Once again emphasis is placed upon the ever present problem of overcrowding. Even in spite of the fall in population the excess of patients over proper bed capacity is 556 or approximately 8½ percent. It should be noted that the buildings which have been added in the last 10 years have been replacements and have not resulted in any increase of bed capacity. There are some indications that the population may stabilize at the present level rather than showing a further drop.

It still remains necessary to maintain a waiting list for prisoner patients to be admitted to Howard Hall. So pressing has this matter

become that it has appeared necessary to make plans for remodeling the so-called Pine Ward in the Center Building as a medium security unit to accommodate the increasing number of prisoners. There is no reason to think that the demands on the hospital for this type of accommodations will decrease. With the increasing recognition by the courts of the psychiatric factors in criminal behavior, indeed, it is likely that the number of patients of this sort will increase. Eventually the new Howard Hall will remedy the problem, but that building is still several years in the offing.

Attention has been called repeatedly to the difficulty in filling senior staff positions in the hospital. One great difficulty which operates against us is that another agency of the Government is permitted to pay a premium of 25 percent of salary to physicians who are diplomates of specialty boards.

There is no change to report in the matter of the elderly patient. Approximately 40 percent of the patients admitted are 60 years of age or over. The program of admitting the patients over 64 years of age to the Geriatric Building is working effectively, and an attempt is being made constantly to return these elderly patients to their homes or to other places (such as the District of Columbia Village) where they may be adequately cared for.

In the line of treatment the so-called tranquillizing drugs appear to be working very well. The hospital, as always in the past, attempts to follow an eclectic approach to treatment. An active program of individual and group psychotherapy is carried on. Treatment and discussion groups of one sort or another are now widespread in the hospital. The District of Columbia Rehabilitation Service and the Board of Education have been very helpful. Recreational therapy has been very considerably extended, while in selected cases electroshock, subshock insulin and hydrotherapy continue to be used. With the new drugs, however, all of these methods, particularly electroshock, are showing a substantial drop. Hydrotherapy continues to have a useful place. Prefrontal leucotomy, never done with any frequency in this hospital, has not been performed at all during the past year.

The activity of the patients in asking for writs of habeas corpus has shown some increase. For example, there were 46 orders to show cause why such a writ should not issue, as against only 15 in the preceding year. Thirty-seven of these orders, however, were dismissed. The number of writs showed a slight decrease, only 20 being issued, and only three of these resulting in the dismissal of the patient.

During the year 1,327 patients were admitted, while 884, or 66.61 percent, were discharged. This is the highest discharge rate since 1946, when acutely ill patients from the Navy were still being treated.

MEDICINE AND SURGERY BRANCH

The services of the Branch are available to the patients of the hospital who are in need of medical or surgical attention of a specialized nature and to those employees who become ill or injured while on duty. During the year 2,762 patients were admitted to the wards of the Branch and a total of 45,066 patients made visits to the clinics.

PSYCHOTHERAPY BRANCH

Psychodrama has continued active, with 345 sessions for patients and 103 conferences. Dance therapy has been considerably expanded, and several individuals have come to the hospital for training in this new and promising field of therapy. The art therapy has also been carried on successfully.

PSYCHOLOGY BRANCH

During the year the psychological activities, formerly carried on a section basis, have been placed in the status of a branch. During the year 2,785 tests were given to 807 subjects. Many of these subjects were employees of the hospital in various grades. During the year the Branch has been approved by the American Psychological Association as an approved training center for clinical psychology. It is one of the few centers to receive such approval. A very active teaching program is carried on. Individual psychotherapy, appropriately supervised, has been carried on by members of the Branch, together with supervision of therapeutic reading and vocational advisement.

LABORATORY BRANCH

The heavy load of the Laboratory has been dealt with very effectively, and in addition an increasingly close relationship between the Laboratory and the Medicine and Surgery Branch has been developed. The improvement of the laboratory facilities continues. During the year 315 autopsies were performed, or 52.6 percent of the 600 deaths which occurred in the Hospital. Four research activities are under way in the biochemical division and the neuropathology research supported by private funds is likewise being carried on.

NURSING BRANCH

The Nursing Branch, in addition to having the general responsibility for the nursing care on the various wards of the hospital, carries on an active educational program. Sixteen schools of nursing affiliate at the present time at the hospital and 310 affiliate nurses were under training during the year. In addition an orientation course for new employees, 355 in number, was carried on, each group of new employees being given instruction in the general activities of the hospi-

tal. Programs for nursing assistants are now under way. In addition, during the year 61 postgraduate students and 25 Navy corpsmen were given instruction and field experience.

OCCUPATIONAL THERAPY BRANCH

The impact of the new tranquillizing drugs upon the occupational therapy activities has been notable. As a result of the increased privileges which may be given to patients, occupational therapy has been shifting toward a closer integration with the rehabilitation activities. A preindustrial occupational therapy clinic has been set up.

SOCIAL SERVICE BRANCH

During the year 1,208 patients were served, with a total of 7,230 interviews, these latter being held both with patients and with others. The Branch has worked closely with the Rehabilitation Service of the District of Columbia, the Public Assistance Division of the Department of Welfare, and the Board of Education. Conferences likewise have been held with the Health Department of the District of Columbia with a view to coordinating the after-discharge care given to patients in the community. For the first time this year educational instruction has been offered 5 days a week to the somewhat growing number of teenage and juvenile patients. Nine students, three from Howard University and six from Catholic University, have been given opportunities for field work during the year. The Branch has been provided with expanded quarters in the E Building.

CHAPLAIN SERVICES BRANCH

The most important item to note in this connection is the opening of the splendid new Saint Elizabeths Chapel. This building, which was originally proposed by the hospital 60 years ago, has finally become a reality. Unfortunately the appropriation was insufficient to provide a suitable organ and it is hoped that voluntary contributions may be received which will enable this final step in the completion of the chapel. Services are held in various other parts of the hospital, such as the Geriatric Building and Howard Hall, and plans are being extended for further such services. The Roman Catholic chaplain has been aided by a part-time priest and by a number of seminarians. He is making plans for a clinical training course for Roman Catholic chaplains. The Protestant chaplain is in charge of the general training program for Protestant theological students and ordained clergymen, and of services for the Protestant patients.

LIBRARY SERVICES

The Medical Library is operated primarily for the benefit of the medical staff. There are also several library collections in other

offices. During the year there were 420 accessions, bringing the total number of volumes in the Medical Library to 17,598. In addition there are somewhat over 15,000 miscellaneous pamphlets. Further space has now been made available to the library in the Administration Building.

The Patients' Library is in charge of one employee, who is assisted by about 27 patients. During the year the accessions numbered 3,366, many of them by gift. The total number of volumes is now 44,677. A very active circulation is maintained among the wards and small deposits of books, changed from time to time, are kept in the day-rooms of many of the wards. Numerous book review sessions are held at the library and in addition a French class and a refresher course in typewriting have been added.

SPECIAL SERVICES BRANCH

The Branch has continued to function most effectively and has been constantly in close touch with the District of Columbia Chapter of the American Red Cross and with a vast number of other community agencies, such as the American Legion and the St. Vincent de Paul Society. These organizations and individuals have been most generous in donating their services, food and other material for the benefit of the patients. Particularly are thanks due to the Motor Corps, the Canteen Service, Production and Supply Service and the Gray Ladies of the American Red Cross. Weekly dances have been held. Motion pictures have been shown, both in Hitchcock Hall and on the wards, and various sports activities have been organized. The Branch supervises the production of a weekly journal, known as *The Elizabethan*, which is edited and written entirely by the patients at the hospital.

VOLUNTEER SERVICES BRANCH

Under the auspices of this relatively new Branch a very gratifying increase in response from the various individuals in the community has been noted. We now have volunteers working throughout the hospital as ward visitors, and receptionists. During the year 102 volunteers gave a total of 8,420 hours of service.

TEACHING ACTIVITIES

The primary purpose of any hospital is the care of patients. Next to this and almost of equal importance are the related duties of teaching and research. The program of training and teaching carried on in previous years has been continued and expanded. The hospital is approved for training in psychiatry during three years of residency required by the American Board of Psychiatry and Neurology, and

this program is in charge of a well trained psychiatrist. The hospital is likewise approved for rotating internship, affiliation being provided at the District of Columbia General Hospital for the interns. An affiliation for psychiatric residents has been continued with the George Washington University Hospital, and affiliation likewise is in force with the Washington Institute of Mental Hygiene and with the Child Center of Catholic University. Medical students from all three of the medical schools are given instruction at the hospital. Dental interns and residents in surgery are also serving. Field work is provided by the Social Service Branch for the Schools of Social Service of Catholic University and Howard University, and students of occupational therapy are received from time to time. Interns and residents are trained in the field of clinical psychology. Affiliation for undergraduate nurses and postgraduate nurses is carried on, and a course for training nursing assistants and psychiatric aides is under way. The value of these training activities is great, both to the recipients, to the fields involved, and particularly to the patients in the hospital. It results always in a direct stimulation of the care of the patient. A substantial number of scientific articles have been published by members of the staff.

Some of the projects under way have already been mentioned. It should be likewise pointed out that during the year discussions have been had with the National Institute of Mental Health and it is hoped that during the coming year a much closer relationship between the hospital and that institution can be developed in the field of research. It is planned that the William A. White Building may be set apart as a special research section of the hospital in cooperation with the National Institute of Mental Health. It is an ironic fact that while millions are being provided for the National Institute of Mental Health, that organization may not make grants to Saint Elizabeths Hospital, nor is any fund in the hospital appropriation earmarked for research. It is to be hoped that by another year this situation may be remedied. Certainly there exists hardly anywhere else such a mine of clinical material which may be utilized profitably for research.

General Administration

The very important functions of general administration fall under two headings, one administrative and one maintenance. All these various nonmedical functions actually enter importantly into the care and treatment of the patient. The sections have all operated smoothly, efficiently, and with a minimum of personnel. The Personnel Section continues to find the recruitment for most of the pro-

professional positions, such particularly as medical officers, psychologists, dental officers and nurses, difficult. During the year under the Wage Board Conversion Program 788 employees were affected. Nearly 68 percent of all of these employees were placed in "saved" rates at the time of conversion, which is to say that the rate which they were receiving before the conversion was greater than it would have worked out under the hourly Wage Board plan. There has been general dissatisfaction among the employees with the operation of the Wage Board Program. The Incentive Awards Program has been carried on successfully. Under the Administrative Services Branch civilian defense drills have been held regularly at least once a month, and the beginning of a new statistical system has been made with the appointment of a statistician. Various aspects of the population dynamics of the hospital are now under study and some preliminary cohort studies are being made.

The maintenance groups have functioned very efficiently during the year. There are many problems connected with a plant of the size of this hospital, particularly since many of the buildings are old. During the year an extensive rehabilitation of the power plant has been under way with particular reference to coal handling. This has caused much inconvenience in the line of deliveries of coal and of oil, but the task when completed will result in much greater efficiency.

The farm has continued to function with reasonable efficiency. The henery has been closed during the year, but the growth of vegetables has been very satisfactory and has provided fresh foods for the kitchens. For example, nearly 70,000 ears of sweet corn were raised during the year. The farm furnishes a useful occupation for about 50 patients, these patients being some who are not able to function in other capacities. It seems desirable certainly for the present that the use of the farm be continued.

Needs of the Hospital

A cafeteria for Continued Treatment Buildings 7 and 8 is still urgently needed, as is a new building to replace the so-called Dawes Section of the Center Building, a section which is particularly poorly planned. Consideration should be given to expanding at least to some extent the size of the hospital. There is no assurance that the present reduction in population, apparently due to the tranquillizing drugs, will continue, but it seems quite likely that the increase in the admissions of elderly patients will. It should be pointed out that the use of the tranquillizing drugs, far from making the load on the employees lighter, actually causes an increase in demands for service. Thus the present understaffing becomes even more noticeable. The

staffing at the present time is far under the standards set as desirable by the American Psychiatric Association. Additional personnel, especially physicians, nurses and other ward types, is urgently needed if the high standards of the hospital are to be maintained. Another urgent need, already mentioned, is provision for marked expansion of research activities.

Table 1.—Movement of patient population, fiscal year 1956

	Total	Male			Female		
		White	Colored	Total	White	Colored	Total
Total number under care and treatment, fiscal year 1956.....	8,856	2,655	1,757	4,412	2,676	1,768	4,444
Remaining on rolls June 30, 1955.....	7,529	2,284	1,463	3,747	2,248	1,534	3,782
Admitted during year.....	1,327	371	294	665	428	234	662
Total discharged and died.....	1,484	467	265	732	506	246	752
Discharged.....	884	273	164	437	289	158	447
Discharged as:							
Recovered.....	89	24	36	60	20	9	29
Social recovery.....	333	66	48	114	134	85	219
Improved.....	268	98	41	139	82	47	129
Unimproved.....	147	58	24	82	48	17	65
Worse.....	0						
No mental disorder.....	46	27	15	42	4	0	4
Unknown.....	1	0	0	0	0	1	1
Died.....	600	194	101	295	217	88	305
Remaining on rolls, June 30, 1956.....	7,372	2,178	1,502	3,680	2,169	1,523	3,692
Change in color.....	0	-10	+10	0	-1	+1	0
On visit and elopement.....	476	113	89	202	170	104	274
In hospital.....	6,896	2,065	1,413	3,478	1,999	1,419	3,418

Table 2.—Consolidated statement of movement of patients, by classification, fiscal year 1956

	Reimbursable patients										Nonreimbursable patient																
	Subtotal	Bureau of Indian Affairs	D. C., residents	D. C. voluntary	U. S. Soldiers' Home	Veterans' Administration	U. S.-State prisoner	Subtotal	Army	Bureau of Employees Com- pensation	Bureau of Immigration and Naturalization Service	Bureau of National Homes	Canadian Insane	Canal Zone	Coast Guard	D. C. nonresidents	Federal reservations	Foreign Service	Interned aliens	Marine Corps	Navy	D. C. prisoners	D. C. prisoners—sex psychopaths	Military prisoners	United States prisoners	U. S. Public Health Service	Virgin Islands
On rolls, June 30, 1955.....	7,529	6,119	5,556	88	39	362	1	1,410	255	1	2	4	58	17	16	228	9	3	4	22	99	287	31	32	147	52	143
Admitted to June 30, 1956.....	1,327	1,088	929	114	31	13	1	239	0	0	0	0	0	0	0	72	16	3	0	0	0	102	3	0	28	0	15
Separations, fiscal year 1956.....	1,484	1,105	4	925	92	23	60	1	379	17	0	1	2	1	0	194	13	1	0	1	6	61	11	4	53	5	9
Deaths.....	600	541	0	507	5	20	0	59	0	0	0	1	2	1	0	17	0	0	0	1	5	7	0	4	3	0	0
Discharges.....	884	564	4	418	87	40	1	320	0	0	0	0	0	0	0	177	13	1	0	0	1	54	11	0	50	9	0
On rolls, June 30, 1956.....	7,372	6,102	5,560	110	47	315	1	1,270	238	1	2	3	56	16	16	106	12	5	4	21	93	328	23	28	122	47	149
Change in category.....	0	-116	-184	-2	---	70	---	116	---	---	---	---	---	---	---	118	-2	1	---	---	---	---	-1	---	---	---	---
Adjusted on rolls, June 30, 1956.....	7,372	5,986	69	5,376	108	47	385	1,386	238	1	2	3	56	16	16	224	10	6	4	21	93	328	22	28	122	47	149
On visit and elopement June 30, 1956.....	476	419	1	366	16	0	38	55	1	0	0	0	0	0	0	20	4	2	0	0	0	21	5	0	0	1	1
Patients in hospital, June 30, 1956.....	6,896	5,565	68	5,010	92	47	347	1,331	237	1	2	3	56	16	16	204	6	4	4	21	93	307	17	28	122	46	148
Total patients treated in fiscal year 1956.....	8,856	7,207	73	6,485	202	70	375	2,649	255	1	2	4	58	17	16	300	25	6	4	22	99	389	34	32	175	52	158

American Printing House for the Blind

AS THE OFFICIAL schoolbook printery for the blind in the United States, one of the principal functions of the American Printing House for the Blind, in Louisville, Kentucky, is the provision of special educational books and supplies for the blind school children throughout the country through the Federal Act "To Promote the Education of the Blind." This act, originally passed in 1879, authorizes an annual appropriation to the Printing House for this purpose. Allocations of books and materials are made on a per capita basis. Only those pupils may be registered whose vision comes within the accepted definition of blindness as follows: "Central visual acuity of 20/200 or less in the better eye with correcting glasses, or a peripheral field so contracted that the widest diameter of such field subtends an angular distance no greater than 20 degrees."

The Printing House maintains large catalogs of Braille books, Talking Books, recorded tapes, Braille music publications, large-type texts, and tangible apparatus. A rich collection of educational material is thereby provided for the kindergarten through the high school grades. A total of 7,520 blind pupils was enrolled in the residential and public school classes for the blind being served by the Printing House for the fiscal year ending June 30, 1956.

During the 1956 fiscal year, Braille books, educational periodicals, and music made up approximately 48 percent of the materials required by the schools; Braille slates, Braillewriters, maps, and other mechanical devices about 18 percent; Talking Books about 5 percent; recorded educational tapes about 2 percent; and large-type books about 22 percent. Approximately 5 percent was used for miscellaneous items.

Gallaudet College

GALLAUDET COLLEGE is devoted to the education of deaf persons who because of their handicap would have difficulty in schools and colleges for hearing students. The college, located in Washington, D. C., is the world's only college for the deaf. In addition to education, it conducts research into the educational problems of deafness. It consists of the Kendall School and the college proper.

KENDALL SCHOOL

Primary and secondary schooling is provided for deaf children in the Kendall School, which also serves as a laboratory school for teachers training in the college. The oral method of instruction is used for all pupils except those who make no progress under it. Enrollment last year was 75, of which 63 came from the District of Columbia.

GALLAUDET COLLEGE

The college, established in 1864 by act of Congress, offers the associate's degree after 2 years of study, and a bachelor's degree in the liberal arts and sciences. The Preparatory Department provides the senior year of high school for students who are unable to obtain it in the State schools for the deaf. The Graduate Department of Education offers a master's degree and a professional diploma in the education of the deaf to students with normal hearing, and offers a four-week training course to vocational counselors who wish to acquire a deeper understanding of deaf persons. Total enrollment in the college last year was 324 with students from 42 States, Hawaii, the District of Columbia, and 7 foreign countries.

Howard University

HOWARD UNIVERSITY was chartered by the act of Congress on March 2, 1867. Located in the District of Columbia, the university operates an undergraduate college, a graduate school offering the master's degree in fifteen departments and the degree of doctor of philosophy in one department, and eight professional schools as follows: medicine, dentistry, pharmacy, engineering and architecture, music, social work, law, and religion. (Religion receives no support from Federal funds.) The university also conducts a summer and an evening school which offers work in adult education.

ENROLLMENT OF STUDENTS

During the school year 1955-56 the university served a total of 5,570 students, as follows: 3,985 during the regular academic year, 1,260 in the summer session, and 325 in the adult evening classes. The net total enrollment, excluding all duplications, was 5,055, of whom 325 were in the evening school and 4,730 in the ten regular schools and colleges as follows: liberal arts, 2,184; graduate school, 457; engineering and architecture, 544; music, 241; social work, 96; medicine, 288; dentistry, 665; pharmacy, 128; law, 95; and religion, 32.

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Of the net total of 4,730 students enrolled in the ten regular schools and colleges in 1955-56, 3,915 students were registered for degrees. Of these students, 3,536, or 90.3 percent, came from 39 States and the District of Columbia, while 379 students, or approximately 9.7 percent, came from outside the continental United States, including 36 foreign countries, the British West Indies, and 4 possessions of the United States.

The 3,536 students who came from the United States were distributed as follows: New England States, 73; Middle Atlantic States, 548; East North Central States, 197; West North Central States, 60; South Atlantic States, 2,101; East South Central States, 268; West South Central States, 261; Mountain States, 7; and Pacific States, 21.

The 379 students from outside the continental United States came from diverse areas in Africa, Asia, Europe, and North and South America. Forty-six students came from seven countries in Africa—Egypt, Ethiopia, Gold Coast, Liberia, Nigeria, Sierra Leone, and Uganda. Twenty-two students came from seven countries in Asia—China, India, Indonesia, Iran, Iraq, Malaya, and Syria. Two students came from Canada. Twenty-one students came from six countries in Central America—British Honduras, Cuba, Haiti, Panama, Spanish Honduras, and the Dominican Republic. Twenty-four students came from twelve countries in Europe—England, Germany, Greece, Italy, Poland, the Soviet Union, Spain, Switzerland, Latvia, Bulgaria, Turkey, and Yugoslavia. Fifty-four students came from three countries in South America—Brazil, British Guiana, and Venezuela. One hundred seventy-eight students came from Bermuda and the British West Indies—Barbados, Bahamas, Grenada, Jamaica, Nevis, St. Vincent, Tobago, and Trinidad. Thirty-two students came from the Canal Zone, Hawaii, Puerto Rico, and the Virgin Islands.

VETERANS

There was a total of 796 veterans enrolled at the University during the school year 1955–56. These 796 veterans were distributed among the 10 schools and colleges as follows: 361 in liberal arts, 160 in engineering and architecture, 17 in music, 67 in the graduate school, 9 in social work, 47 in dentistry, 43 in medicine, 40 in law, 45 in pharmacy, and 7 in religion.

The enrollment of veterans in 1956 represented an increase of 170 above the veteran enrollment for the previous year.

There were 55 veterans among the 554 graduates in all schools and colleges, representing an increase of 11 above the group of veteran graduates in 1955.

ARMY AND AIR FORCE ROTC

Army ROTC.—Two hundred and six students were enrolled in Army ROTC during the 1955–56 school year of whom 172 were in the first and second year basic courses. Eighteen students completed all phases of the required work and were commissioned in the following branches of the service: Adjutant General Corps, Armor, Artillery, Chemical Corps, Infantry, and the Medical Service Corps.

Air Force ROTC.—A total of two hundred and eighty students were enrolled in Air Force ROTC during 1955–56. Two hundred

and thirty-one (231) of these were in the first and second year courses. Eighteen students received reserve commissions in the Air Force at the end of the school year.

THE FACULTY

During the school year 1955-56, there were 486 teachers serving the university. Of this number 272 were teaching on a full-time basis, while 214 were engaged in part-time capacities. The full-time equivalent of the entire teaching force was 319.5 persons. Of this number 285 were teaching in the ranks of instructor and above as follows: professors, 67; associate professors, 72; assistant professors, 67; instructors, 79. Seventy-two of the 214 part-time teachers were serving the university without compensation.

THE BUILDING PROGRAM

In September 1955, the College of Pharmacy moved into its new building. This building is a four-story brick structure with a usable basement. It was built and equipped at a cost of \$970,000 made available by an appropriation of Congress.

During the year 1955-56 work neared completion on the new Law Building and the Biology Building, both of which were scheduled to be occupied at the beginning of the fall term in 1956. In addition, the new Administration Building was nearly completed and was being readied for occupancy sometime during the first semester of 1956-57.

Construction continued on the new preclinical medical building, with its completion expected to be in May 1957. By the end of the 1955-56 year, the plans and specifications for the Auditorium-Fine Arts Building and the new Men's Dormitory were virtually completed, with the expectancy of being placed on the market for bids in the fall of 1956.

GRADUATES

During the school year 1955-56 there were 554 graduates, as compared with 514 in the preceding year. These 554 persons came from 33 States, the District of Columbia, the Virgin Islands, Puerto Rico, from Africa, Asia, Europe, North, Central, and South America. They were distributed among the ten schools and colleges as follows: liberal arts, 253; engineering and architecture, 21; music, 16; graduate school, 48; social work, 30; medicine, 68; dentistry, 47; dental hygiene, 8; pharmacy, 28; law, 30; and religion, 5. The university also awarded three honorary degrees.

During the years since its origin in 1867, Howard University has graduated 19,263 persons. By far the largest number of these graduates have entered the field of teaching, primarily engaged in the

building of the system of education in the former slave States. Two thousand eight hundred and one (2,801) have entered the practice of medicine; 2,306 have entered the practice of dentistry and dental hygiene; 1,579 have entered the practice of law; 763 have entered the ministry; 807 the practice of pharmacy; 542 the field of engineering; and 329, the field of social work.

These graduates are at work in 43 States, and 27 foreign countries. In every population center in the United States they constitute a cross section of the leadership of the Negro people. Together, these graduates constitute the largest and most diversified group of trained Negro public servants related to any single institution in the world. In the eight professions of medicine, dentistry, pharmacy, engineering, architecture, music, law, and social work, they include a body of Negro professional graduates larger than the output of all other universities of public and private support combined in all the Southern States.

SERVICE IN FOREIGN COUNTRIES

Howard University students and teachers have associated daily with teachers and students representative of every race and color and many of the major creeds of the world. They have learned by experience that the common country of the trustable human heart crosses and transcends all these boundaries of external differences, and they are habituated to a friendly interest in human beings everywhere. In recent years many of those students and teachers, as individuals and in groups, have traveled on missions to many countries in Europe, Asia, and Africa; as now in India, Iraq, Indonesia. Wherever they have gone, they have imparted good will and friendship and they have found good will and friendship in return.

Again and again the responsible leaders in Government and the friends of America have acknowledged their services as being of the greatest value to their country and to the cause of democracy in the world.

Just now the Professor and the Head of the Department of Classics is returning to Howard University from a 2-year period of service as Cultural Attache of the United States Embassy in Italy. The university has received a letter from Government officers which speaks of his service in the highest terms of appreciation.

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